



July 1975

# Ohio University Bulletin

Undergraduate catalog of curricula and courses 1975-76





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The fees, programs and requirements contained in this bulletin are effective with the 1975 fall quarter.  
They are necessarily subject to change without notice at the discretion of the University.

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Vol. LXXII                      No. 4                      July, 1975

Published by Ohio University, 51 Smith Street, Athens, Ohio 45701 in February,  
April, June, July, August and September. Second class postage paid at Athens, Ohio.

Produced by the Office of University Publications, Don F. Stout, Director  
*Editor:* Patricia L.H. Black; *Cover Design:* Paul Bradford; *Photography:* Harry Snively



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## Academic Calendar, 1975-76

### FALL QUARTER, 1975

Sept. 22, <i>Mon.</i>	Advising day.
Sept. 23, <i>Tues.</i>	Class schedule adjustment day; registration.
Sept. 24, <i>Wed.</i>	Classes begin.
Oct. 7, <i>Tues.</i>	Last day to register for fall quarter; to register for pass/fail option; to add and/or drop courses; to process change orders without paying fee; for partial refund of registration fee; for filing application and paying fee for conferral of degree on December 13.
Oct. 8, <i>Wed.</i>	Courses dropped will not remove fees for hours dropped; courses added will add fees when applicable; first day for WP-WF.
Oct. 13, <i>Mon.</i>	Columbus Day (offices closed; classes in session).
Nov. 3, <i>Mon.</i>	Last day for removing incomplete grades incurred during last session enrolled.
Nov. 11, <i>Tues.</i>	Veterans Day (offices closed; classes in session).
Nov. 17-20	Winter quarter preregistration and academic advising.
Nov. 26, <i>Wed.</i>	Last day to process a change order for fall quarter; Thanksgiving holiday begins at noon.
Nov. 27, <i>Thurs.</i>	Thanksgiving Day (University officially closed).
Dec. 1, <i>Mon.</i>	Classes resume with first scheduled class.
Dec. 4, <i>Thurs.</i>	Last day to pay fees for winter quarter (to insure preregistration).
Dec. 5, <i>Fri.</i>	Last day to withdraw for fall quarter.
Dec. 6, <i>Sat.</i>	Last day of classes; degree candidates must have all required work completed.
Dec. 8, <i>Mon.</i>	Examinations begin.
Dec. 13, <i>Sat.</i>	Quarter closing date.

### WINTER QUARTER, 1976

Jan. 5, <i>Mon.</i>	Class schedule adjustment day; advising; registration.
Jan. 6, <i>Tues.</i>	Classes begin.
Jan. 19, <i>Mon.</i>	Last day to register for winter quarter; to register for pass/fail option; to add and/or drop courses; to process change order without paying fee; for partial refund of registration fees; for filing application and paying fee for conferral of degree March 20.
Jan. 20, <i>Tues.</i>	Courses dropped will not remove fees for hours dropped; courses added will add fees when applicable; first day for WP-WF.
Feb. 10-13	Spring quarter preregistration and academic advising.
Feb. 16, <i>Mon.</i>	Last day for removing incomplete grades incurred during last session enrolled; Presidents' Day (offices closed; classes in session).
Mar. 1, <i>Mon.</i>	Last day to pay fees for spring quarter (to insure preregistration).
Mar. 5, <i>Fri.</i>	Last day to process a change order for the winter quarter.
Mar. 12, <i>Fri.</i>	Last day to withdraw for winter quarter.
Mar. 13, <i>Sat.</i>	Last day of classes; degree candidates must have all required work completed.
Mar. 15, <i>Mon.</i>	Examinations begin.
Mar. 20, <i>Sat.</i>	Quarter closing date.

## SPRING QUARTER, 1976

- Mar. 29, *Mon.* . . . . . Class schedule adjustment day; advising; registration.  
 Mar. 30, *Tues.* . . . . . Classes begin.  
 Apr. 12, *Mon.* . . . . . Last day to register for spring quarter; to register for pass/fail option; to add and/or drop courses; to process change order without paying fee; for partial refund of registration fees; for filing application and paying fee for conferral of degree on June 12.  
 Apr. 13, *Tues.* . . . . . Courses dropped will not remove fees for hours dropped; courses added will add fees when applicable; first day for WP-WF.  
 May 10, *Mon.* . . . . . Last day for removing incomplete grades incurred during last session enrolled.  
 May 3-21 . . . . . Summer quarter preregistration.  
 May 24-27 . . . . . Fall quarter preregistration.  
 May 28, *Fri.* . . . . . Last day to process a change order for spring quarter.  
 May 31, *Mon.* . . . . . Memorial Day holiday (University officially closed).  
 June 1, *Tues.* . . . . . Last day to pay fees for summer quarter (to insure pre-registration).  
 June 4, *Fri.* . . . . . Last day to withdraw for spring quarter.  
 June 5, *Sat.* . . . . . Last day of classes.  
 June 7, *Mon.* . . . . . Examinations begin.  
 June 12, *Sat.* . . . . . Quarter closing date; Annual Commencement.

## SUMMER SESSION, 1976

**First Term**

- June 21, *Mon.* . . . . . Registration day; classes begin.  
 June 25, *Fri.* . . . . . Last day to register for first five-week term; to register for pass/fail option; to add and/or drop courses; for partial refund of registration fee; to process change order without paying fee; for undergraduate student to file application and pay fee for conferral of degree on August 28; for graduate student to file application and pay fee for conferral of degree on August 28.  
 June 28, *Mon.* . . . . . Courses dropped will not remove fees for hours dropped; courses added will add fees when applicable; first day for WP-WF.  
 July 5, *Mon.* . . . . . Independence Day holiday (University officially closed).  
 July 16, *Fri.* . . . . . Last day to process a change order for the first term.  
 July 23, *Fri.* . . . . . Last day of classes; examinations; degree candidates must have all required work completed (including work pending from previous quarters) and to instructors.  
 July 24, *Sat.* . . . . . Term closing date.

**Second Term**

- July 26, *Mon.* . . . . . Registration day; classes begin.  
 July 30, *Fri.* . . . . . Last day to register for second five-week term; to register for pass/fail option; to add and/or drop courses; for partial refund of registration fee; to process change order without paying fee; for undergraduate student to file application and pay fee for conferral of degree on August 28 (graduate student must have filed on June 25).  
 Aug. 2, *Mon.* . . . . . Courses dropped will not remove fees for hours dropped; courses added will add fees when applicable; first day for WP-WF.  
 Aug. 20, *Fri.* . . . . . Last day to process a change order for second term.  
 Aug. 27, *Fri.* . . . . . Last day of classes; examinations; degree candidates must have all required work completed (including work pending from previous quarters) and to instructors.  
 Aug. 28, *Sat.* . . . . . Quarter closing date.

## **Address Inquiries Concerning:**

Admissions information and acceptance of credits  
to the Office of Admissions, Chubb Hall

Athletics to Intercollegiate Athletics, Convocation Center

Campus tours to the Office of Admissions, Chubb Hall

Continuing education, independent study, workshops,  
conferences or institutes to the  
Extension Division, Tupper Hall

Curricula and undergraduate degree requirements to the  
office of the dean of the college in question

Financial aids, scholarships, loans and student employment  
to the Office of Student Financial Aids, Chubb Hall

Graduate study to the Graduate College, Graduate Building

Housing to the Office of University Housing, Chubb Hall

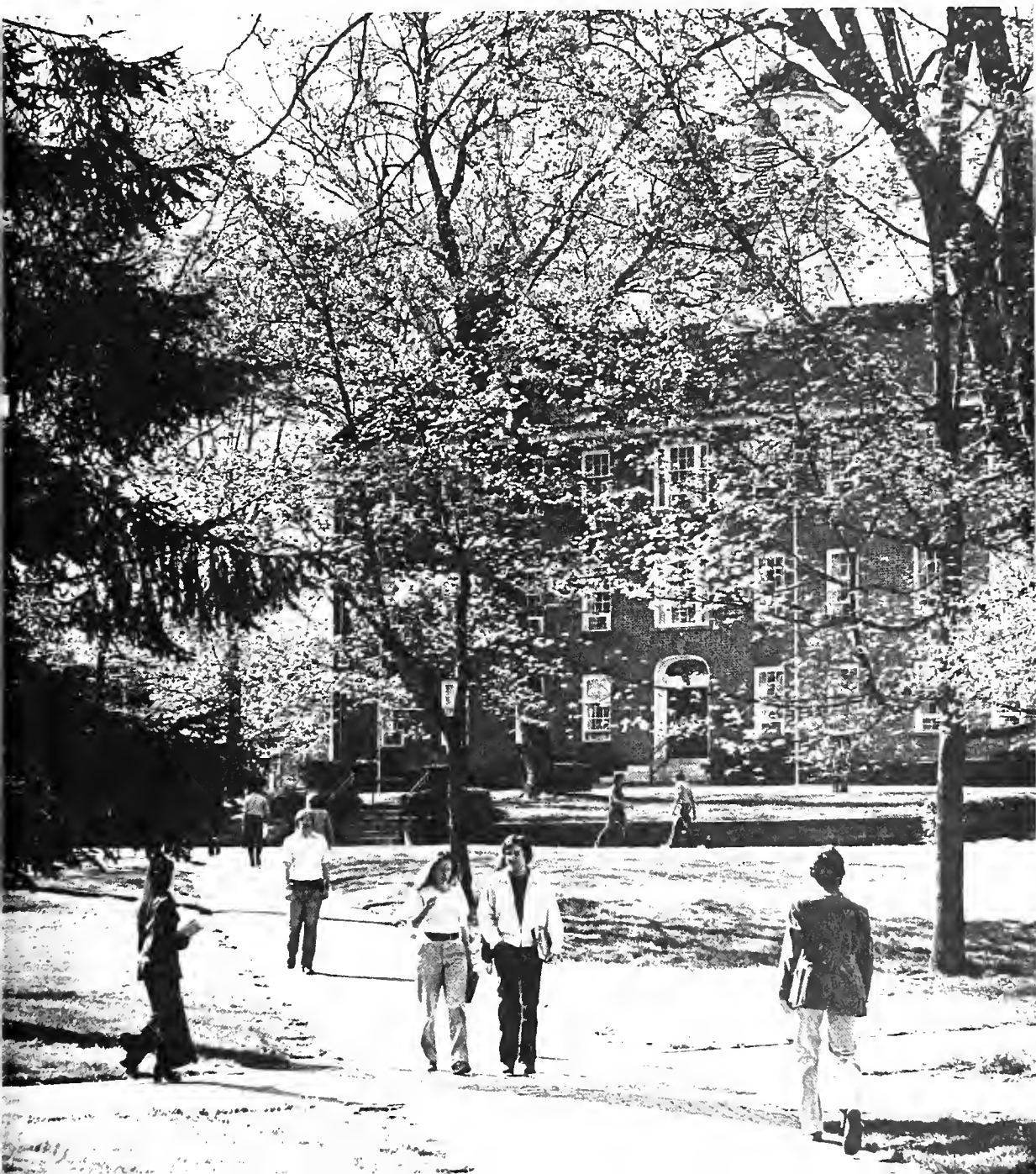
Registration, class schedules and veterans' affairs  
to the Office of Registration, Chubb Hall

Transfer students to the Office of Admissions, Chubb Hall

The University switchboard number is 614/594-5511.

Ohio University, Athens, Ohio 45701

# Profile of Ohio University



## PROFILE OF OHIO UNIVERSITY

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The charm of tree-lined brick walkways on Ohio University's College Green makes one feel as if one were at a small college rather than a large university. Much of what goes on at Ohio University has this personalized feeling, a unique trait for a school of its size.

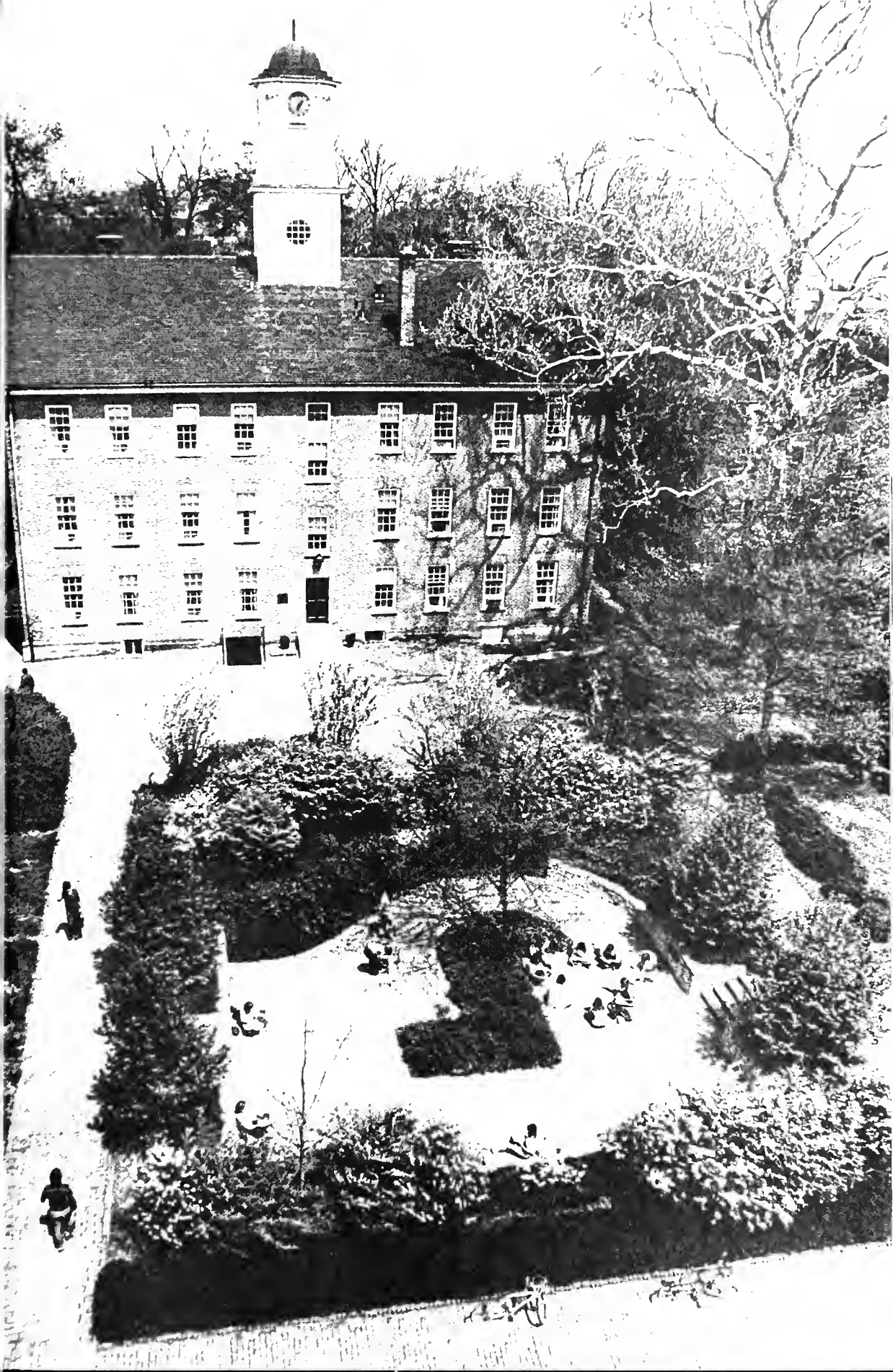
The City of Athens, home of the University, contributes to the aspect of warmth. Located about 70 miles southeast of Columbus, it's a small city where people still smile and say hello on the streets. Athens is on the banks of the Hocking River, surrounded by small farms on the hills and in the valleys, along with woodlands and state parks. The intellectual and cultural intensity of the University could have no better setting for privacy or meditation when it is needed.

The heritage of Ohio University goes back to the 18th century and the Ordinance of 1787, which included a provision for establishing the school. The University was actually founded in 1804, making it the first institution of higher learning in the old Northwest Territory that includes the present states of Ohio, Michigan, Indiana, Illinois, Wisconsin and Minnesota.

The three oldest buildings on the College Green, red brick structures with wooden shutters, date from the early 19th century and are fine examples of Georgian architecture. One of them, Cutler Hall, in the center of campus, was built in 1816 and is now a National Historic Landmark.

The University provides a wide range of cultural activities for not only the University community but for all of southeastern Ohio. All of the lecturers, poets, singers, dancers, films and theater or music groups appearing on campus are available within walking distance of the residence halls. Many events are free, though some do have nominal charges.

There are 12 state parks and thousands of acres of national forest within 40 miles of the campus. The parks have facilities for swimming, boating, camping, hiking, picnicking and fishing. When one needs to get away, it's possible to walk for hours in the woods without running across dwellings, cars or other people. But if city life is a necessity now and then, Columbus and Cincinnati are within reasonable driving distance.





## CAMPUS VISITS

The best way to know what our educational setting is like is to visit our campus. There's no better way to see what the living accommodations are like than to visit one or more of the three residential "greens" that surround the main campus. The greens are separate neighborhoods or communities within the University, adding to the personalized atmosphere of the Athens campus.

An admissions field representative can schedule appointments for you with faculty in your field of interest, or you may wish to write directly to the Admissions Office, Chubb Hall, Ohio University, Athens, Ohio 45701. Guides are available year round and appointments are preferred but not required. Daily tours start at the Admissions Office in Chubb Hall at 10 a.m., Monday through Saturday, and at 2 p.m., Monday through Friday. Saturday and Sunday tours begin at 2 p.m. in the lobby of Baker Center. The Admissions Office is open from 8 a.m. to 5 p.m., Monday through Friday, and from 9 a.m. to noon on Saturday.







## THE STUDENT BODY

While the setting can be an important background for the college experience, the people with whom one will be living, working and studying should be a central concern.

We can safely say that a typical Ohio University student cannot be found. The one characterization we can apply to the student body is that it is culturally diverse. The exposure to other races, nationalities, religions and ethnic groups is a basic part of an educational experience. Life in a city usually doesn't provide the diverse day-to-day contact one is likely to have on a campus, with students from all over the United States, as well as from Africa, Asia, Europe and other parts of the world. Points of view from different cultures, as well as the possibility of lasting personal relationships, will be invaluable.

The special needs of various minority groups have been met on the Ohio University campus. The needs of women have been taken into account in both academic and extracurricular programs at Ohio University. The English, government and history departments offer courses geared to women's problems, taught by female and male faculty alike. Many programs and speakers of interest are offered each year.

Women's intercollegiate athletics is an expanding program and women have regained admittance to the marching band.

Another way in which the University has taken into consideration the needs of a minority group is in the establishment of the Lindley Student Center. Though developed to accommodate the unique interests and needs of black students, the center is not exclusively for blacks. One purpose in creating the center was to give white and international students an opportunity to experience what people in another cultural group enjoy.

A further step along these lines is the International House within the dormitory system which allows roughly equal numbers of international students and American students to live together in the same building, sharing each other's cultural heritage.





## STUDENT ACTIVITIES

As was said earlier, a typical Ohio University student cannot be found. The students are distinguished by their individuality as well as their maturity. They acquire education both outside and inside the classroom. Athletic and cultural events can all be important parts of a person's learning experience.

University and student organizations regularly bring speakers and performing artists to campus. Among those who spoke or read here recently are James Earl Jones, Strom Thurmond, Gloria Steinem and Isaac Bashevis Singer. The University Artists Series has brought, among others, the Israel Chamber Orchestra, Preservation Hall Jazz Band, National Theater of the Deaf, Noh-Kyogen Theater of Japan and the Viola Farber Dance Company among others.

Popular performers have included Richie Havens, Pure Prairie League, Linda Ronstadt and Jonathon Edwards (who started out professionally in Athens).

Approximately 150 student organizations exist on campus. Greek, honorary, departmental, professional, recreational, volunteer and special-interest groups are included. Many significant national honor societies have chapters on campus. These include Phi Beta Kappa and Phi Delta Kappa among others. Opportunities to do volunteer work in Athens and surrounding communities are offered by the Student Life Office.



### **Intercollegiate Athletics**

Ohio University belongs to the Mid-American Conference, which includes Miami University, Bowling Green, Toledo, Kent State, Ball State, Northern Illinois, Eastern Michigan, Central Michigan and Western Michigan. Varsity sports include football, basketball, baseball, track, cross country, swimming, wrestling, golf, tennis and soccer. The OU Bobcats also compete against many out-of-conference teams around the country. Students are admitted free to all home games by showing validated I.D. cards.

Women's Intercollegiate Athletics is also active with varsity teams in softball, basketball, field hockey, swimming, tennis, volleyball, track and field, lacrosse and golf. It is a new and expanding program and invites the participation of all women, regardless of major.

Athletic facilities include gymnasiums, an indoor ice-skating rink, tennis courts, an indoor swimming pool and areas for horseshoe pitching and softball. The West Green is the site of the athletic complex, and the multimillion dollar Convocation Center is the major sports arena as well as concert site in southeastern Ohio.

### **Recreation**

There are many recreational opportunities for men and women in the extensive intramural program. In addition, Baker Center (the University student center) provides facilities for bowling, billiards and table tennis, as well as rooms for student meetings and campus-wide social and cultural events.

An average of four movies are shown on campus each week. Some are first-run films of a year or so ago, while others are foreign film classics and experimental movies. The showings are sponsored by campus organizations at reduced prices.



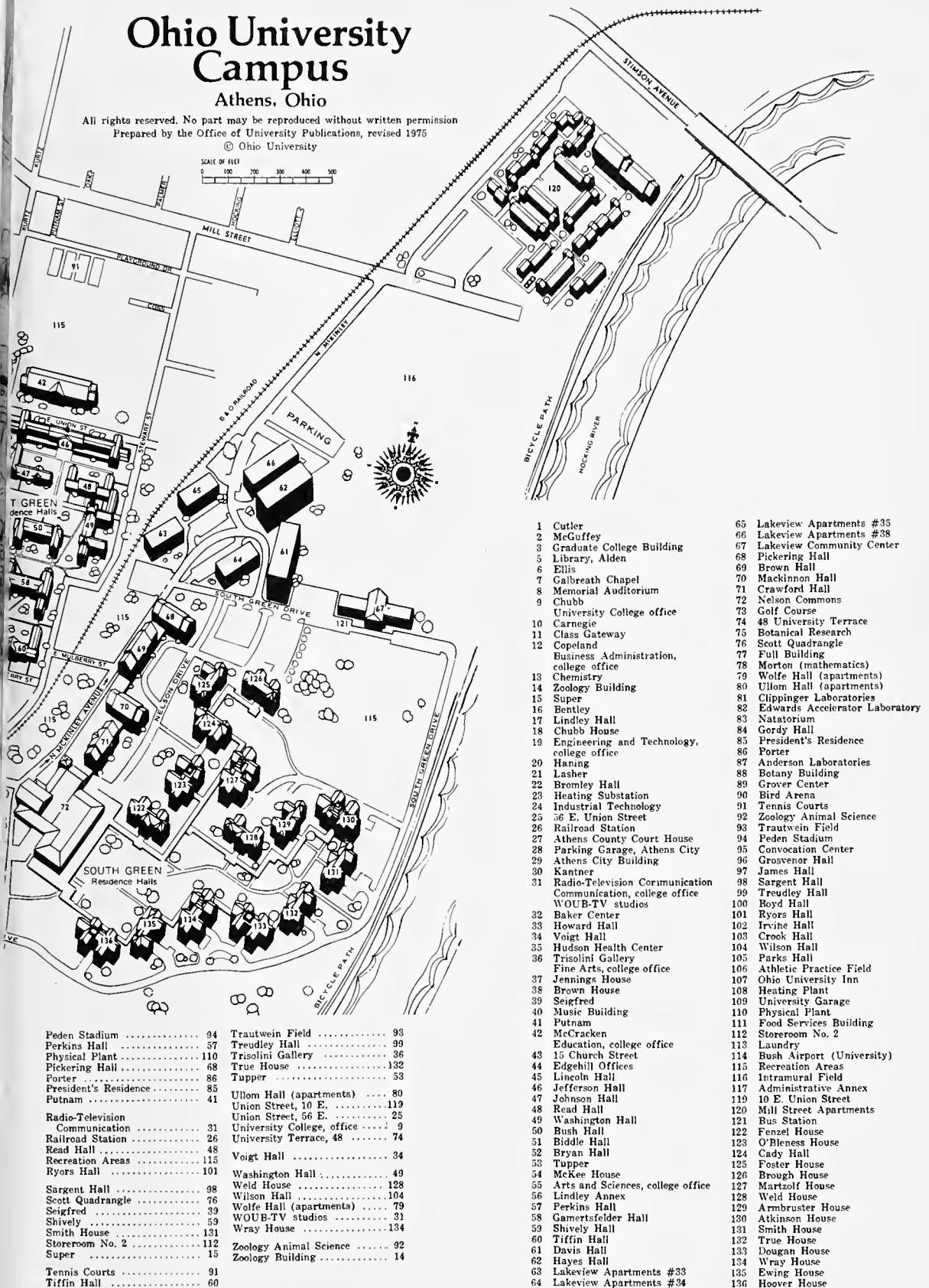




# Ohio University Campus

Athens, Ohio

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Peden Stadium	94	Trautwein Field	93
Perkins Hall	57	Treudley Hall	99
Physical Plant	110	Trisolini Gallery	36
Pickering Hall	68	True House	132
Porter	86	Tupper	53
President's Residence	85	Ullom Hall (apartments)	80
Putnam	41	Union Street, 10 E.	119
Radio-Television		Union Street, 56 E.	25
Communication	31	University College, office	9
Railroad Station	26	University Terrace, 48	74
Read Hall	48		
Recreation Areas	115	Voigt Hall	34
Ryors Hall	101	Washington Hall	49
Sargent Hall	98	Weld House	128
Scott Quadrangle	76	Wilson Hall	104
Seigfried	39	Wolfe Hall (apartments)	79
Shively	59	WOUB-TV studios	31
Smith House	131	Wray House	134
Storeroom No. 2	112	Zoology Animal Science	92
Super	15	Zoology Building	14
Tennis Courts	91		
Tiffin Hall	60		

1 Cutler	65 Lakeview Apartments #35
2 McGuffey	66 Lakeview Apartments #38
3 Graduate College Building	67 Lakeview Community Center
4 Library, Alden	68 Pickering Hall
5 Ellis	69 Brown Hall
6 Galbreath Chapel	70 Mackinnon Hall
7 Memorial Auditorium	71 Crawford Hall
8 Chubb	72 Nelson Commons
9 University College office	73 Golf Course
10 Carnegie	74 48 University Terrace
11 Class Gateway	75 Botanical Research
12 Copeland	76 Scott Quadrangle
Business Administration, college office	77 Full Building
13 Chemistry	78 Morton (mathematics)
14 Zoology Building	79 Wolfe Hall (apartments)
15 Super	80 Ullom Hall (apartments)
16 Bentley	81 Clipping Laboratories
17 Lindley Hall	82 Edwards Accelerator Laboratory
18 Chubb House	83 Natatorium
19 Engineering and Technology, college office	84 Gordy Hall
20 Haring	85 President's Residence
21 Lasher	86 Porter
22 Bromley Hall	87 Anderson Laboratories
23 Heating Substation	88 Botany Building
24 Industrial Technology	89 Grover Center
25 36 E. Union Street	90 Bird Arena
26 Railroad Station	91 Tennis Courts
27 Athens County Court House	92 Zoology Animal Science
28 Parking Garage, Athens City	93 Trautwein Field
29 Athens City Building	94 Peden Stadium
30 Kanter	95 Convocation Center
31 Radio-Television Communication, college office	96 Grosvenor Hall
WOUB-TV studios	97 James Hall
32 Baker Center	98 Sargent Hall
33 Howard Hall	99 Treudley Hall
34 Voigt Hall	100 Royd Hall
35 Hudson Health Center	101 Ryors Hall
36 Trisolini Gallery	102 Irvine Hall
Fine Arts, college office	103 Crook Hall
37 Jennings House	104 Wilson Hall
38 Brown House	105 Parks Hall
39 Seigfried	106 Athletic Practice Field
40 Music Building	107 Ohio University Inn
41 Putnam	108 Heating Plant
42 McCracken	109 University Garage
Education, college office	110 Physical Plant
43 15 Church Street	111 Food Services Building
44 Edgehill Offices	112 Storeroom No. 2
45 Lincoln Hall	113 Laundry
46 Jefferson Hall	114 Bush Airport (University)
47 Johnson Hall	115 Recreation Areas
48 Read Hall	116 Intramural Field
49 Washington Hall	117 Administrative Annex
50 Bush Hall	119 10 E. Union Street
51 Biddle Hall	120 Mill Street Apartments
52 Bryan Hall	121 Bus Station
53 Tupper	122 Fenzel House
54 McKee House	123 O'leness House
55 Arts and Sciences, college office	124 Cady Hall
56 Lindley Annex	125 Foster House
57 Perkins Hall	126 Brough House
58 Gamertsfelder Hall	127 Martzolf House
59 Shively Hall	128 Weld House
60 Tiffin Hall	129 Armbruster House
61 Davis Hall	130 Atkinson House
62 Hayes Hall	131 Smith House
63 Lakeview Apartments #33	132 True House
64 Lakeview Apartments #34	133 Dougan House
	134 Wray House
	135 Ewing House
	136 Hoover House



## RESIDENCE HALL LIFE

At Ohio University each student is required to live in University-owned residence halls until he or she has earned a total of 90 hours of credit. This normally means up to and including the third quarter of the sophomore year. Residence-hall living can be exciting but sometimes distracting. A quiet-hours policy helps to minimize the distractions and to provide an opportunity to study or rest. Hall residents have the opportunity to establish the policies for their buildings once the hall student governments are elected. Each hall has a professionally trained resident director.

Designed to meet the needs of incoming freshmen, the Freshman Residential Program provides increased opportunities for interaction among the faculty, staff and other students. Although University services are provided in all residence halls, increased guidance, leadership and service programs operate in the freshman buildings. There are increased academic advising services, more career planning assistance, learning skills workshops, human sexuality workshops, personal growth groups, leadership training, special tutoring and many opportunities to participate both as a leader and/or participant in programs designed by and for new students.

The Housing Office determines room assignments, which are usually doubles. Students may choose the residence hall (from those participating in the Freshman Residential Program) by stating their choice on the Acceptance Agreement. Students may choose their roommates as well. Returning upperclassmen are given first choice of residence hall rooms and all remaining rooms are assigned on a first-come, first-served basis.

As one progresses upward in class rank at the University, one's freedom increases. The choice of courses widens and at the end of the sophomore year, one has the option of choosing housing either on or off campus. Anyone who pledges a fraternity or a sorority, however, may apply to live in a Greek house after achieving sophomore status with 45 credit hours.









## INDIVIDUAL COUNSELING

At Ohio University we believe that education works best when it is suited to the needs and goals of the individual, whether an undergraduate or a graduate student. Counseling is available on many levels to help students with definite career goals as well as those who are undecided.

First, admissions counselors can help decide if Ohio University is the appropriate place. Faculty advisors in all departments can help decide if a suitable field has been chosen. If a student does not have a precise career choice, University College counselors can be of assistance. University College offers a bachelor of general studies degree, which allows students to structure their own degree programs, taking a wider variety of courses than would be possible through a major.

Counseling and Psychological Services provides career counseling, occupational information, educational counseling and personal adjustment problem assistance, on a confidential basis. Individual and/or group counseling and psychological therapy are available. Should a student encounter a problem that cannot be solved through regular channels, the University ombudsman may be able to help.

No matter what the class rank is, a student may want to speak with counselors in the Placement and Internship Office. They can help evaluate the present job market possibilities in most academic majors. They conduct slide presentations and mini-seminars dealing with how to conduct a job search, how to conduct

yourself during interviews and how to prepare resumes. They also have a series of self-help guides and a guide to self-evaluation in the job market.

This past year, although the economy was down, there were more recruiters from business, industry and education at Ohio University. Over 300 recruiters visited campus, including national corporations from New York, New Jersey, California and Texas and the school district of New South Wales, Australia. Students have access to an extensive library of career information which includes application forms for state, federal and private employment, graduate schools, civil service test information, job descriptions, graduate school catalogs and telephone directories of 80 percent of our national metropolitan areas.

Last year, Placement helped place 99 percent of the University's engineering graduates in good jobs, and 86 percent of last year's teaching graduates are now teaching. Since many summer employers actively recruit on campus, the Placement Office is a source of summer jobs as well. In addition, they will aid in preparing letters of inquiry and resumes and will help in obtaining summer jobs.

Higher education can mean many things to many people. It can mean learning specific skills for a particular career, learning how to analyze and communicate in a complex environment. Whatever one's goals may be, good counseling is available at Ohio University on many levels.



## ACADEMIC INFORMATION

Students with definite areas of interest are admitted directly to the degree colleges of their choice and assigned to faculty advisors. If the student has decided on the college but not a major, he or she may still enter the college. Undecided students and those who wish to explore several academic areas may be admitted to University College. There are no freshman course requirements common to all students; those with tentative majors refer to the requirements outlined under the specific college in this catalog.

### Faculty

The possibilities of personal contact are enhanced by the low student-faculty ratio. Though first-quarter freshmen are likely to be in fairly large classes in survey and introductory courses, class size tends to diminish as one's class rank increases. Upperclassmen will have classes close to the ratio.

Ohio University recognizes teaching as the faculty's primary responsibility.

### Library

The seven-story Alden Library was completed in 1972. It houses 800,000 volumes including periodicals and government documents. Current issues of over 6,375 periodicals and newspapers are available, plus nearly 500,000 microform units. The building has a seating capacity of 3,200 and will ultimately hold 1,400,000 volumes.

# Guidelines and General Information



## Academic Organization

### The University College

Basic college for exploratory students at the freshman level. Two-year terminal programs leading to the associate in arts, associate in science and associate in applied science degrees. Four-year program leading to the bachelor of general studies degree. Aerospace Studies and Military Science programs (Reserve Officers Training Corps).

### The College of Arts and Sciences

Preprofessional curricula. Curricula leading to the bachelor of arts and bachelor of science degrees. Preparation for teaching at the secondary level.

#### Departments:

Botany  
Chemistry  
Classical Languages  
Computer Science  
English Language and Literature  
Geography  
Geology  
Government  
History  
Linguistics  
Mathematics and Astronomy  
Modern Languages  
    French      Portuguese  
    German     Russian  
    Italian     Spanish  
Philosophy  
Physics  
Psychology  
Social Work  
    Mental Health Technology  
Sociology and Anthropology  
Zoology and Microbiology

### The College of Business Administration

Curricula leading to the bachelor of business administration degree.

#### Departments:

Accounting and Quantitative Methods  
Administrative Sciences  
Economic Education  
Economics  
Organizational Science

### The College of Communication

Curricula leading to the bachelor of science in hearing and speech sciences, bachelor of science in communication and bachelor of science in journalism degrees.

#### Schools:

Hearing and Speech Sciences  
Interpersonal Communication  
Journalism  
Radio-Television

### The College of Education

Teacher-training curricula leading to the bachelor of science in education degree; supervision of student teaching and other field experience in education. Curricula leading to the bachelor of science in home economics and the bachelor of science in nursing degrees.

#### Schools:

Applied Behavioral Science and Educational Leadership  
Curricula and Instruction  
Health, Physical Education and Recreation  
Home Economics  
Nursing

## **The College of Engineering and Technology**

Curricula leading to the bachelor of science in chemical engineering, bachelor of science in civil engineering, bachelor of science in electrical engineering, bachelor of science in industrial and systems engineering, bachelor of science in mechanical engineering and bachelor of science in industrial technology degrees.

### **Departments:**

- Chemical
- Civil
- Electrical
- Engineering Graphics
- Industrial and Systems
- Industrial Technology
  - Industrial Arts (Teaching)
  - Industrial Technology
- Mechanical

## **The College of Fine Arts**

Curricula leading to the bachelor of fine arts and bachelor of music degrees.

### **Schools:**

- Art
  - Art Education
  - Art History
  - Ceramics
  - Graphic Design
  - Painting
  - Photography
  - Printmaking
  - Sculpture
- Dance
  - Dance
- Music
  - Applied Music
  - Music Education
  - Music History and Literature
  - Music Therapy
  - Theory and Composition
- Theater
  - Acting
  - Children's Drama
  - Comprehensive Theater
  - General Theater

- Department of Comparative Arts
- Department of Film

## **Additional Curricula and Programs**

### **Afro-American Studies**

Established to encourage students to develop individual perspectives concerning the role of the black person in modern society and to train intellectuals as agents of community change.

### **Extension Division**

Provides educational opportunities beyond the regular channels of the University by utilizing the resources of the University in nontraditional ways.

- Continuing Education
- Independent Study
- Workshops, Conferences and Institutes

### **Honors Tutorial College**

Attempts to provide the most flexible and challenging education possible both to the academically gifted and to the creative students.

### **International Studies**

Offers a Certificate of African, Asian or Latin American Studies to undergraduates as a supplement to the student's major.

- African Studies
- Latin American Studies
- Southeast Asian Studies

### **Ohio Program of Intensive English**

Provides training in the English language designed to raise the proficiency of the nonnative speaker to a level at which he or she is able to undertake academic study in an American college or university.

### **Regional Campuses**

- Academic Center at Ironton
- Regional Campuses
  - Belmont County
  - Chillicothe
  - Lancaster
  - Zanesville

## **The Graduate College**

Programs leading to the master of arts, master of business administration, master of education, master of fine arts, master of science and doctor of philosophy degrees.



## ADMISSION AND FEES

A special publication for prospective students, a bulletin describing the University, its available programs, its admissions procedures and regulations and its history, can be procured by writing to the Office of Admissions, Chubb Hall, Ohio University, Athens, Ohio 45701.

Applications for admission to study at the freshman, sophomore, junior or senior level may be obtained from the Office of Admissions. Application materials and additional information about graduate study are available upon request to the Graduate College.

### When to Apply

A person may apply for admission to undergraduate study at any time following the junior year in high school.

New students are admitted to the fall quarter, which opens the fourth week in September; the winter quarter, which opens the first week in January; the spring quarter, which opens the fourth week in March, or the summer session, with terms which open the third week of June and the fourth week of July.

August 1 is the application deadline for the fall quarter. Those needing residence hall space should apply well ahead of this deadline since housing is usually reserved to capacity before this date. Applications for other terms are accepted up to a month before classes begin.

### Application Procedures

The applicant's level of formal education and place of residence determine the procedures he or she follows in applying for admission to the University. The High School Equivalency Certificate may be substituted for the diploma.

**Freshman Applicant.** A person who (a) has or soon will have a secondary school diploma and (b) has not been enrolled for 12 or more credit hours of coursework in a post-secondary institution, applies as a freshman applicant.

A freshman applicant files (1) an admissions application, plus a \$20 nonrefundable fee; (2) a transcript of all previous high school coursework and grades, including rank in class and (3) required test results.

All applicants must submit the Scholastic Aptitude Test (SAT) or the American College Test (ACT) results. The University recommends the fall test dates, although any is acceptable. The high school counselor or the principal's office has information about when and where these tests can be taken and how to register for them.

Once the necessary information is filed, the application is processed and a decision is made to grant provisional admission, deny admission or defer a decision pending receipt of additional information from the applicant. The applicant receives written notification of the decision.

If provisional admission is granted, the student receives a residence hall contract and a form for submitting final high school grades, if the latter were not included on the initial transcript. Within about six months of initial registration a medical report form is also received.

Once these three documents are completed and returned, final approval for registration is granted. The student's credentials are then forwarded to the college of his or her choice. The student and his or her parents will then receive from the dean of University College an invitation to participate in an orientation program.

**Early Admissions.** The University does admit a limited number of students each year who have accelerated their high school programs and wish to enter before completing the high school diploma. To be eligible for early admission the student must have two or fewer units to complete for the diploma, possess a B average or higher; show satisfactory test results on the SAT or ACT (normally 1000 total SAT or 25 composite ACT), have a strong recommendation to the program by the high school principal or guidance counselor and secure the approval of the director of admissions. The student also must make arrangements to secure the high school diploma by the beginning of the sophomore year or secure the High School Equivalency Certificate by taking the General Education Development Test.

**Transfer Applicant.** A person who has been or is registered for 12 or more hours of



coursework at a post-secondary institution of education applies as a transfer applicant. (For credit evaluation see p. 35.)

A transfer applicant files (1) an application form accompanied by a \$20 nonrefundable fee, (2) a transcript from each post-secondary institution in which he or she has been registered and (3) a high school transcript of grades.

Once provisional admission is granted, the student receives a medical report form to complete and return with any supplemental transcripts required prior to final approval for registration.

Space is available in University residence halls for transfer students and contracts will be mailed by the Housing Office shortly after admission has been granted. See p. 40 concerning the residence hall requirement.

Students who are applying for transfer to the College of Fine Arts are required to submit a portfolio or audition. They should make their own arrangements for this by contacting the appropriate school in the College of Fine Arts.

**Applicant From Another Country.** A citizen of another country applies to the director of admissions if interested in undergraduate study; to the dean of the Graduate College if interested in graduate study.

The applicant files (1) an admissions application; (2) complete official transcripts and pertinent certificates for all secondary and post-secondary work; (3) if his or her native language is not English, results of the Test of English as a Foreign Language (TOEFL) and (4) such evidence as may be required by the University concerning the applicant's ability to meet the financial obligations of a student in the United States. Whenever possible, the applicant should also submit results of the Scholastic Aptitude Test (SAT).

Payment of the \$20 nonrefundable application fee may be deferred until registration time.

An official translation must accompany transcripts and certificates which are not in English. *Do not submit documents for which there is only one copy; documents submitted in support of an application cannot be returned to the owner.*

TOEFL test dates for the 1975-76 academic year are October 1975 and January, March and June 1976. If further information about TOEFL is not available in your lo-

cality, write the Educational Testing Service, Box 592, Princeton, New Jersey 08540, U.S.A. Registration is five weeks prior to the examination.

Once admission is granted, the student receives a medical report form, a residence hall contract and an I-20 form to be used in securing a student visa. The medical report form and housing contract are to be completed and returned to the University prior to arrival on campus.

**Special Student.** If an applicant (1) wishes to carry a limited number of courses at the University but is not interested at this time in a degree program or (2) does not meet the minimum requirements (see next section) for admission as a regular full-time student but lives within commuting distance of one of the University's campuses, then he or she may apply for admission as a special student.

Such persons may be cleared for registration upon completion of a special student application and filing of a statement of good standing or an official transcript from the school(s) previously attended. The statement or transcript must include a report of the applicant's grade point average on all credits attempted.

Special students normally carry fewer than 12 credit hours. A special student who wishes to carry more than 11 hours must secure permission from University College.

The University currently charges a \$10 nonrefundable application fee for special students.

**Reenrolling Applicant.** If a person has previously attended as an undergraduate student but is not currently enrolled at Ohio University as a full-time or part-time student on the Athens and/or regional campuses and wishes to return as an undergraduate student, he or she applies as a reenrolling applicant. Any student who has been dropped from the University or has a hold must have this cleared through the appropriate office before reenrollment can be processed.

A reenrolling applicant files with the Office of Admissions (1) an application form for reenrollment and (2) a transcript from each post-secondary institution in which he or she has been registered.

Once provisional admission is granted, a report of medical history is required (for final admission) of all students who resume

their studies after an absence of two or more years. (See Entrance Medical Requirements).

Space is available in University residence halls for reenrolling students and contracts will be mailed by the Housing Office shortly after admission has been granted (See p. 40 concerning residence hall requirements.)

## Admission Requirements

A particular pattern of high school subjects is not required for admission to undergraduate study at Ohio University. However, the following distribution of subject matter prepares a student for the pursuit of any curriculum at the University: three years of English, two years of foreign language, two years of social science, two years of a laboratory science, one year of algebra and one year of plane geometry.

**Freshman Applicant.** Residents of the State of Ohio are admitted as regular full-time or special part-time freshmen on the basis of a prediction of their success in a full-time university program of studies. Non-Ohio residents are considered only for full-time study and must meet higher standards.

The prediction of an applicant's success in a full-time program is based on an evaluation of his or her previous courses of study, the grades attained, rank in class, the school's recommendation, test results and special talents.

Persons who do not meet the minimum requirements for full-time study but live within commuting distance of any campus of the University may enroll as special part-time students.

An applicant who does not meet the minimum requirement for full-time study, is less than 21 years of age and does not live within commuting distance of one of the campuses should seek admission to another college or university.

**Transfer Applicant.** A cumulative grade point average of 2.0 (on a scale where A is 4, B is 3, C is 2 and so forth) is normally required of the transfer applicant. For information related to the credit evaluation and recording of transfer credit, refer to the *Credit and Grading* section of this bulletin.

## Entrance Medical Requirements

The health service maintains a confidential, continuous health record which is required for final admission to the University. The medical report must include indication of completion of the required immunization against tetanus within the past ten years.

Required of each new student is a tuberculosis skin test administered by the University Health Service at the time of entrance to the University. All positive reactors must receive a chest x-ray by the Health Service annually while at the University.

Students who resume their studies at Ohio University after an absence of two or more years are required to submit the report of medical history as required of all new students entering the University. A tuberculosis skin test at the time of such reenrollment at the University is also required.

A major medical insurance plan, designed to supplement the care provided by the University's Health Center, is mandatory for each full-time student, unless he or she submits evidence of comparable coverage under a private plan.

## Ohio Residency

It is the responsibility of the student to report a change of residency from that of an Ohio resident to a non-Ohio resident at the Office of Student Records. If the student's residency has changed from that of a non-Ohio resident to an Ohio resident, he or she should file the appropriate application with the Admissions Office.

In determining whether or not an enrolled student is an Ohio resident for purposes of the appropriation subsidy, each state-assisted institution shall make a determination of fact in accordance with these standards handed down by the Ohio Board of Regents effective September, 1973:

### A. Authority, History, and Effective Date

1. It is the intent of the Ohio Board of Regents in promulgating this Rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the State of Ohio primarily for the purpose of receiving the benefit of the state supported education while insuring that that same benefit is conferred on all

bona fide domiciliaries of this State whose permanent residence and legal citizenship is in Ohio, and whose actual source of financial support is subject to Ohio taxation.

2. This Rule is adopted pursuant to Chapter 119, Ohio Revised Code, and under the authority conferred upon the Ohio Board of Regents by Am. Sub. H.B. 86 of the 110th Ohio General Assembly making general appropriations for the biennium beginning July 1, 1973 and ending June 30, 1975.
3. This Rule operates to rescind and replace Rule R.G.-1-2(D) adopted by this Board of July 1, 1972.
4. This Rule shall be effective as of September 1, 1973, and shall continue in effect until its rescission or amendment.

### B. Definitions

For purposes of this Rule:

1. A resident of Ohio "for all other legal purposes" shall mean any person who maintains a 12-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state welfare benefits, and who may be subjected to tax liability under Section 5747.02 of the Revised Code; provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.
2. "Financial support" as used in this rule, shall not include grants, scholarships and awards from persons or entities which are not related to the recipient.
3. An "institution of higher education" as used in this rule shall mean any university, community college, technical institute or college, general and technical college, medical college or private medical or dental college which receives a direct subsidy from the state of Ohio.

### C. General Residency for Subsidy and Tuition Surcharge Purposes

The following persons shall be classified as residents of the State of Ohio for subsidy and tuition surcharge purposes:

1. Dependent students, at least one of whose parents or legal guardian has

been a resident of the State of Ohio for all other legal purposes for 12 consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.

2. Persons who have resided in Ohio for all other legal purposes for at least 12 consecutive months preceding their enrollment in an institution of higher education and who are not receiving, and have not directly or indirectly received in the preceding 12 consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.
3. Persons who reside and are gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who are pursuing a part-time program of instruction at an institution of higher education.

### D. Specific Exceptions and Circumstances

1. A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.
2. A person who enters upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
3. Any alien holding an immigration visa shall be considered a resident of the State of Ohio for state subsidy and tuition surcharge purposes in the same manner as any other student.
4. No person holding a student or other temporary visa shall be eligible for Ohio residency for these purposes.
5. A dependent person classified as a resident of Ohio who is enrolled in an institution of higher education when his or her parents or legal guardian remove their residency from the State of Ohio, shall be considered a resident of Ohio for these purposes during continuous full-time enrollment and until his or her completion of any one academic degree program.
6. Any person once classified as a non-resident, upon the completion of 12 consecutive months of residency in

Ohio for all other legal purposes, may apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding 12 consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident.

Evidentiary determinations under this Rule shall be made by the institution which may require, among other things, the submission of information regarding the sources of a student's actual financial support to that end.

7. Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.

#### *E. Procedures*

Institutions of higher education charged with reporting student enrollment to the Ohio Board of Regents for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of their Ohio residency for purposes of this Rule. Such institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this Rule.

### **Equal Opportunity Programs**

It is the policy of Ohio University that, in education and employment opportunities, there shall be no discrimination against any individual because of race, color, creed, national origin or sex. Also, there shall be no discrimination because of age except in compliance with age requirements of retirement plans or state and federal laws and guidelines.

Furthermore, the University shall conduct a vigorous affirmative action program in order to promote equal employment opportunities and to insure nondiscrimination in all educational programs and activities.

Details of the University's Affirmative Action Plan, as well as information about

related policies and state and federal non-discrimination laws and guidelines, are available through Equal Opportunity Programs, 103 McGuffey Hall, Ohio University, Athens, Ohio 45701.

### **Registration Fees**

Undergraduate registration fees are payable at the Cashier's Office\* prior to the opening of classes and in accordance with instructions issued with registration materials. Checks and money orders should be made payable to Ohio University in the exact amount of the fees. It is important that the student retain all fee receipts.

Payment of fees owed is a prerequisite to official enrollment, and all students should have sufficient funds to cover these expenses. Post-dated checks will not be accepted. Checks issued to the University and not paid on presentation to the bank will automatically cancel any receipts given and result in the assessment of penalties.

Ohio University reserves the right to make, without prior notice, any fee adjustments that may become necessary.

\*Regional campus students pay fees at the campus where they are registered. For graduate fees see the Graduate Catalog.

### **Refund of Fees**

The official University policy on the refund of registration fees is: (1) Official withdrawal from the University prior to the first day of classes entitles the student to a refund of 100 percent. (2) Withdrawal from the University *during* the first 14 days of the quarter (see the academic calendar, p. 4) entitles the student to a refund of 80 percent. (3) Withdrawal from the University *after* the first 14 days of classes entitles the student to no refund. (4) Any student withdrawing from the University while owing the University money is considered to be indebted to the University for that amount.

*Continuing students* dropping hours by change order prior to or during the first ten days of the quarter, when such changes result in a reduction of fees, are entitled to receive a 100 percent refund of the reduction. Changes made after the tenth day of the quarter will result in no refund.

Refunds are issued 30 days after the date of withdrawal from the University.

Questions about the above items should be referred to the Office of Registration.

## Late Registration and Late Payment Policy

Unless in the judgment of the registrar a student's registration has been delayed due to the convenience of the University, a \$20 *late registration fee* will be assessed each late-registering student beginning with the first Monday after the opening day of classes of each quarter. No student registration forms will be accepted after the 14th calendar day of the quarter following the opening day of classes.

A *late payment fee* would normally not be applicable since payment is a prerequisite to registration. However, in addition to other service charges a \$20 *late payment fee* will be assessed by the Bursar's Office on all checks returned by a bank after the payment deadline has passed.

## Monthly Payment Plan

A monthly payment plan is available to full-time students (undergraduate over nine hours; graduate over eight hours) on the Athens campus who pay the entire amount for either their registration fee, including the nonresident surcharge if applicable, and/or dormitory fees (room only, board only or both). The plan, which equalizes the quarter's fees into three payments the first of which is due approximately two months before the opening of the quarter, may be chosen for one or all of the fees. Students electing the monthly payment plan will pay an additional administrative charge, which is nonrefundable, of \$9 per year for each area chosen. The \$9 equates to \$3 per quarter.

Students who receive assistance from the Financial Aids Office or the Graduate College are not included in the monthly payment plan area for which they are specifically receiving assistance. For example, students receiving scholarships are not eligible for the registration (tuition) plan. However, they are eligible for the residence hall plan. In addition, the residence hall plans are available only to those students who have signed housing contracts.

Contact the Cashier's Office, Chubb Hall, to obtain an application for the monthly payment plan.

## SCHEDULE OF UNDERGRADUATE FEES\*

### Instructional Fees

	Resident of Ohio	Nonresident
Comprehensive fee for load of 10 to 18 hours, inclusive		
Athens campus . . . . .	\$260.00	\$660.00
Regional campuses . . . . .	240.00	640.00
Includes the instructional fee—the general fee, and other special services (such as health, library and testing) and course and laboratory fees. Excludes fees for instruction as in music and bowling, which are listed in the quarterly class schedule.		
Extra fee for each quarter hour in excess of 18 hours		
Athens campus . . . . .	\$ 14.00	\$ 36.00
Regional campuses . . . . .	12.00	34.00
Fee for each hour for load of 1 to 9 hours, inclusive		
Athens campus . . . . .	26.00	66.00
Regional campuses . . . . .	22.00	64.00
Auditors pay fees in full as above.		

### Extension Division Classes:

Registration for each quarter hour		
off campus . . . . .	\$ 22.00	\$ 58.00
on campus . . . . .	24.00	58.00

### Independent Study (Extension Division):

Independent Study courses, each quarter hour . . . . .	17.50	20.00
Independent Study projects, each quarter hour . . . . .	17.50	20.00
Course Credit by Examination, each quarter hour . . . . .	7.50	7.50
External Student status . . . . .	25.00	25.00
External Student Program for the incarcerated, comprehensive fee, per quarter . . . . .	—	413.00

### Miscellaneous Fees

Admission application filing fee (nonreturnable) . . . . .	\$20.00
Change of class schedule or change of college . . . . .	2.00
Duplicate official forms, fee receipts, grade report, etc. . . . .	2.00

\*Subject to change at the discretion of the University.

Course Credit by Examination, each quarter hour . . . . .	7.50
Graduation, application for degree	
Associate . . . . .	7.50
Bachelor . . . . .	15.00
Master's . . . . .	20.00
Doctoral . . . . .	50.00
Health insurance, annual premium . . . . .	26.50
(See Medical Requirements, p. 28)	
Late registration and/or payment . . . . .	20.00
Reapplication . . . . .	5.00
Penalty for late application, if approved . . . . .	5.00
Transcript of record . . . . .	1.00
Placement registration fee . . . . .	10.00

## REGISTRATION AND PROCEDURES

### REGISTRATION

Details concerning the registration procedure are printed each quarter in the schedule of classes and may be obtained at the Office of Registration in advance of each registration.

In accordance with regulations a student currently in attendance at the University may preregister for a subsequent quarter.

New and former undergraduate students will receive registration information by mail with other orientation material from the Office of Admissions.

### Student Load

All regular full-time students, including those on probation, will usually carry a normal load of 15-18 quarter hours.

Students who schedule fewer than ten credit hours will be considered part-time for the effective quarter.

### Auditing and Visiting Privilege

Courses to be audited must be marked "audit" on registration forms. Questions about auditing should be referred to the student's college office. Changes from audit to credit or from credit to audit are made by change order during the period when changes are permitted.

With the permission of the instructor, a full-time student has the privilege of visiting classes in which he or she is not registered.

## Classification of Students

A student who has been admitted to the University and who expects to pursue a degree course is given rank according to the number of quarter hours earned; freshman, 0-44; sophomore, 45-89; junior, 90-134, and senior 135 and over.

### Graduate Study As A Senior

A student who is within nine hours of completing all requirements for the bachelor's degree at Ohio University may take courses carrying graduate credit, provided the requirements for admission are otherwise met and the written recommendation of the dean of the college, the graduate chairman of the major department and the *approval of the dean of the Graduate College* are secured. This privilege also may be extended to a well-qualified senior of another university who has nine or fewer hours to complete for the bachelor's degree. *Request for this privilege should be made in advance of registration through the Graduate College Office.*

## CHANGE PROCEDURES

### Change of Class Schedule

A student who finds it necessary to add a course, withdraw from a course or correct his or her registration secures a change order in the office of the dean of the college in which he or she is enrolled. The student then consults the designated departmental representative or the instructor of each course being dropped or added. The departmental representative or the instructor approves the change by initialing the form. After securing the instructor's approval, the student presents the change-order form for the dean's approval. A fee of \$2 is charged for each change order processed after the 14th day of classes.

For any student who withdraws from a course after the 14th day of the quarter the instructor will assign a grade of WP or WF, indicating that the student was performing work considered passing (WP) or failing (WF) at the time of withdrawal. This grade will be awarded at the end of the quarter, at which time the names of all withdrawn students will appear on the grade sheet.

A course may be added only during the

first 14 calendar days of the quarter. For information concerning fee changes see the regulations under *Fees* in this catalog.

A course may be dropped any time during the first 14 calendar days of the quarter with no academic penalty. After the 14th day a course may not be dropped except for extenuating circumstances and with explicit approval of the instructor.

*Continuing students* dropping hours by change order prior to or during the first 14 days of the quarter, when such changes result in a reduction of fees, are entitled to receive a 100 percent refund of the reduction. Changes made after the 14th day of the quarter will result in no refund.

A student denied permission by an instructor to withdraw from a course may appeal the decision to the chairman of the instructor's department, then, if necessary, to the dean of the student's college.

### Change of Student Personal Information

All changes of student personal data must be reported to the Office of Registration, Chubb Hall. Changes of name, social security number and/or birth date must have a document verifying the correct information at the time the request is made.

Forms for reporting a change of home or Athens address are available in the Office of Registration. *The student is responsible for any University office communication sent to him or her at the last address reported to the Office of Registration, Chubb Hall.*

### Change of College

Application for transfer from one degree college to another is made in the office of the dean of the college in which the student is enrolled and must be made and completed within the first 14 days of each quarter or the student remains enrolled in the initial college. The change goes into effect when the application, signed by the two deans concerned, has been presented to the Office of Registration, Chubb Hall. A student must fulfill all the requirements for the college to which he or she transfers.

### WITHDRAWAL FROM THE UNIVERSITY

Application for withdrawal is made on a withdrawal form obtained in the office of

the dean of the college in which the student is enrolled. When the request for the withdrawal has been approved by the dean of the college, the withdrawal is referred to the Office of Registration, Chubb Hall, which grants an official withdrawal after it has been determined that all obligations to the University have been met. A refund of registration fees is made according to regulations under the section *Refund of Fees*.

Special provisions in respect to credits and refunds apply to students who withdraw because of induction into military service.

### TRANSCRIPTS

A copy of a student's record is issued by the Office of Student Records, Chubb Hall, as an official transcript. Transcripts are made only upon request. Each copy of the transcript costs \$1. The transcript carries a statement of good standing except when a student has been dropped from the University because of poor scholarship, nonpayment of fees or unsatisfactory conduct. A student on scholastic probation has his or her status indicated on the transcript.

### POLICY ON REPLACEMENT DIPLOMA

A notarized affidavit, attesting that the original diploma has been lost or destroyed by fire, flood water or war must be filed with the Office of Student Records at Ohio University.

Each affidavit requesting a replacement diploma must be accompanied by a \$10 fee.

The replacement diploma will carry current titles and signatures of University officers. It will be the same size and quality as the diploma being issued currently at the time of request.

## CREDIT AND GRADING

### Credit and Final Examinations

All credit is designated in quarter hours. A quarter hour is the equivalent of one recitation or two or more laboratory periods a week throughout a quarter. The final examinations are held during the last week of a session and all students are required to take the examinations according to the

schedule issued by the director of scheduling, i.e., if a final examination is required for that course.

The final examination for honors work must be taken before the opening of the regular examination period. For information concerning honors work, refer to "Departmental Honors Program."

## Grading System and Reports

At the close of a session or upon the completion of a course an instructor reports a letter grade indicating the quality of a student's work in the course. Points are assigned for each quarter hour of credit earned, according to the following grading system:

A	4.00	C	2.00
A—	3.67	C—	1.67
B+	3.33	D+	1.33
B	3.00	D	1.00
B—	2.67	D—	0.67
C+	2.33	F	0.00

CR. . . In addition to the letter grades a report of credit may be made. This is credit without a grade. Credit is added to the hours earned, but not added to the hours attempted for point-hour calculation. Credit is to be used for certain courses and only by prior approval of the Curriculum Council or in certain special cases by the dean of the college.

PR. . . Progress. The PR is awarded only in graduate courses and undergraduate courses specifically designated by the department with the approval of the student's college dean. It indicates the student has made progress in the course in which he or she is registered but has not finished the work required for releasing a letter grade. The course may extend longer than one quarter. It is not calculated in the grade point average.

I. . . . The student has not finished the work required to receive a grade. It is not counted in the grade point average. Unless it is changed within the first six weeks of the next quarter enrolled, the I converts to F (an extension of time may be requested to run to the end of the quarter).

WP } . . . Designation for a course dropped  
WF } after the 14th day of the quarter.

These grades do not count in the grade point average.

Other reports which will appear on the student's grade slip but which are not assigned by a faculty member:

AU. . . Audit. A student registering for *Audit* is expected to attend classes consistent with the instructor's attendance policy. Failure to do so will result in removal of the audit from the student's record. If this action results in a change of fees, the official University policy on refund of registration fees will be applied.

I\* . . . Administrative Incomplete. Given to a student who initially registers for a course but does not officially drop that course by change order. The I\* is given by the Office of Student Records and may be removed in accordance with rules established by the student's college. The I\* may be the result of a faculty member assigning a grade for which the course is not coded as legitimate. Until removed, an administrative incomplete will be computed as an F in the calculation of the grade point average.

NC. . . No credit. This is a conversion of the F grade for a freshman who has not yet accumulated a total of 45 enrolled hours. NC will appear on the student's permanent record.

NR. . . No Report. The instructor left the grade blank on the grade report. Grades were turned in too late to be processed.

P. . . . Conversion of grades A through D—under the pass/fail option. The fail (F) grade counts in the grade-point average the same as any F grade.

A form properly submitted by the student through his or her college office for a course for which graduation credit is not allowed will appear on the transcript with double asterisks (\*\*) on the same line as the course and an explanation at the bottom of the transcript stating:

\*\*Not counted toward graduation. Hrs. & Pts. not included in totals for scholastic average.

A form properly submitted by the student through his or her college office for a repeated course will appear on the transcript in the same manner. Only the final hours attempted and/or earned and points for this course will appear in the transcript totals.



To facilitate the transition from high school to college and to help establish equal opportunities for those of unequal backgrounds, courses failed in the freshman year will be recorded on the permanent record as NC. Should a student wish to eliminate hours and points for courses in which D grades were earned when he or she has enrolled for 45 hours, the dean may be requested to make this change.

The request for D deletion must be initiated by the student during the first 14 days of the next quarter of enrollment. The transcript will show a slash (/) through the credit hours, grade and points for the course or courses deleted.

Only the corrected totals will then show for each quarter's work. This carries an explanation at the bottom of the transcript: *"\*/ABC Grading Policy."*

With the new grading system effective fall quarter 1973-74, the ABC grading policy has been made retroactive. This applies to currently enrolled, undergraduate degree-seeking students only.

The freshman's accumulative average will be computed on hours attempted. A second-quarter freshman will be eligible for third-quarter enrollment provided a total of at least 15 hours of credit with grades of D or higher has been earned. Retention for the fourth quarter will be based on an accumulation of 24 credit hours earned, of which 12 must be with grades of C or higher.

### Pass/Fail Option

Many colleges and departments place restrictions on the student's taking courses in the major by pass/fail. Coursework taken contrary to these restrictions may not count as credit. The student is encouraged to refer to the departmental office or office of the dean before taking any work in the major by pass/fail. Applications may be obtained at the offices of the deans. Application must be made before the 14th day of the quarter.

Regardless of the college of enrollment, the student entering the University in fall quarter, 1973, or after may complete no more than 20 quarter hours under the pass/fail option. To be eligible for the pass/fail option, the student must have earned a 2.5 or better average for his or her last quarter of full-time enrollment, or have a 2.0 or better accumulative average. Students under the freshman grading system are not eligible

for the pass/fail option. A student may take only one course per quarter by pass/fail.

### The Point-Hour Ratio

The basis for determining scholastic standing is the point-hour ratio. It is obtained by dividing the total number of points earned by the total number of quarter hours of credit attempted.

### Transfer Credit Evaluation and Recording of Transfer Credit

All acceptable transfer credit in which a grade of C— or better has been earned is converted to a T grade symbol on the student's permanent academic record. The number of quarter hours of credit which were earned is recorded on the academic record, but no quality points are recorded. Transfer students therefore enter Ohio University with no grade point average on the Ohio University academic records.

Normally a D grade is not transferable. However, if a D grade has been earned in a course which was a specific prerequisite (as stated in the academic catalog of the prior school) to a course in which the student earned a grade of C— or better, then the course in which the D was received will be accepted for credit earned and the T grade symbol will be recorded. Students meriting credit under this stipulation must contact the Office of Admissions, Chubb Hall, to receive credit for this coursework.

### Evaluation of Technical College Credits

A student who has completed an associate degree from a Regents-approved Ohio college will have accepted for transfer credit all the general education coursework for which the degree was awarded if completed with a grade of C— or better. These credits will be accepted by all colleges of Ohio University toward meeting the minimum total credits required for a baccalaureate degree. The applicability of these transferred credits toward meeting the requirements of the program the prospective student wishes to enter can be determined in advance on request to the Admissions Office. Requests should specify in which program the student is interested, and should be accompanied by a transcript of record to be forwarded by the Admissions Office to the appropriate assistant dean for evaluation.

Unlike general education credits, basic studies and technical courses are not acceptable transfer credit in all programs. They will be reviewed course-by-course and may be applied toward graduation credit in certain programs for which they are an appropriate foundation.

A student transferring without having completed an associate degree from an Ohio Regents-approved two-year institution will have his or her records reviewed on a course-by-course basis. Students from two-year out-of-state institutions will have courses evaluated in accordance with that institution's reported accreditation rating in *Report of Credit Given by Educational Institutions*, published by the American Association of Collegiate Registrars and Admissions Officers.

### Deans' List

The freshman Deans' List, compiled at the close of each quarter, includes the names of all freshmen who have point-hour ratios of at least 3.3 on a minimum of 15 quarter hours of credit earned, including 12 hours attempted for letter grades. At the freshman level F grades are taken into consideration in establishing Deans' List eligibility.

The upperclass Deans' Lists, compiled at the close of each quarter, include the names of all upperclassmen who have point-hour ratios of at least 3.3 on a minimum of 15 quarter hours of credit earned including 12 hours attempted for letter grades.

### Probation Regulations

Each student's record is reviewed at the close of each quarter. If a student's cumulative record shows a grade-point deficiency, he or she is subject to being placed on probation or dropped from the University. The point-hour ratio is obtained by dividing the total number of grade points earned by the total hours attempted. The entire record, including each grade in each course attempted, is used to determine the student's probation status.

The extent to which a student's record is below a point-hour ratio of 2.0 (C) determines whether he or she will be dropped, placed on probation or continued on probation. The deficiency is determined by multiplying the total number of hours attempted by two and subtracting from this all points

earned. For example, if a student has attempted 40 hours and has earned 65 points the deficiency is 15:  $40 \times 2.0$  (the point-hour ratio required for graduation) equals 80; 80 minus 65 points earned equals 15.

### Probation

Freshman students enrolled in a full-time academic program who earn fewer than six hours at the end of the first quarter will be placed on academic probation. A student who has earned fewer than 45 hours is placed on probation when the grade-point deficiency is greater than 12 grade points. This student should note also the University College's policy relating to eligibility for enrollment (above). The student who has attempted 45 or more hours is placed on probation if he or she has less than a 2.0 average (one or more deficiency points).

### Probation Removal

Probation is removed if a student on probation who has completed fewer than 45 hours reduces the grade-point deficiency to 12 or fewer grade points. For the student who has attempted 45 or more hours probation is removed when the point deficiency is reduced to zero.

### Continuance on Probation

A student who has been on probation for one quarter may be continued on probation for one additional quarter if the grade-point deficiency has not increased and he or she is not eligible to be removed from probation. However, at the close of this additional quarter the student must be eligible to be removed from probation or he or she will be dropped from the University.

### Dropped From The University

Any student whose grade-point deficiency at the close of a quarter exceeds the number of hours attempted will be dropped from the University. A student may be dropped even though he or she has not previously been on probation. A student on probation is dropped from the University if the point-grade deficiency has increased and he or she is not eligible to be removed from probation.

Normally, a petition for reinstatement will not be considered until 12 months after

the student was dropped. The student presents the petition to the dean of his or her college. Only extraordinary circumstances will prompt the committee to consider a petition for second reinstatement, and then not until 24 months after the student was dropped.

A student who is dropped from the University may not enroll for courses on the Athens campus, on a regional campus or in correspondence or extension courses conducted by Ohio University until reinstated.

### **Plagiarism**

Plagiarism can take many forms, but in essence it involves the presentation of some other person's work as if it were the work of the presenter. This kind of deception has no place in the academic world.

Plagiarism, a form of academic misconduct, will not be tolerated within the Ohio University community. Whenever plagiarism takes place, as determined by the judgment of a faculty member, or by the procedures of the Office of University Judiciaries, serious action will be taken against the student committing plagiarism. Such action may be failure of work undertaken; failure of the course; censure by the faculty member, department or college involved, and/or formal action by the Office of University Judiciaries, which can include suspension or dismissal from the University.

Whenever formal action is taken with respect to plagiarism, the student(s) involved, the faculty member, the department chairman and the student's dean should be notified of the action.

It is appropriate for each faculty member to point out each quarter, among the several introductory items of business related to the course, the nature of plagiarism and the range of punishments pertaining to it.

When a student is accused and judged guilty of plagiarism, and wishes to appeal the judgment, he or she may follow the usual appeal route through chairman and dean. If satisfaction is not achieved through this process, the appeal may be taken to the Student Complaint Board.

### **Class Attendance Policy**

Each instructor will state his or her policy during the first week of classes each quarter.

### **Instructor's Attendance Reports**

A student who misses the first two class meetings of a course for which he or she is enrolled, may be dropped from the course. Official notice of this action will be sent to the student by the Office of Registration in Chubb Hall. A student who has missed the first two class meetings should verify his or her status with the instructor.

Instructors are encouraged to report to the office of the dean of the appropriate college the names of students who are frequently absent. This enables the staff to investigate such cases and to determine what assistance these students may need in dealing with problems outside the classroom.

### **Notification of Causes of Absence**

Under certain conditions a notification of absence enabling a student to make up work missed may be obtained from the appropriate office as indicated below. The following rules apply.

A. When a student has participated in an authorized University activity, such as a departmental trip, music or debate activity, ROTC function or athletic trip, the notification should be issued by the sponsoring office.

B. A student absent from class due to hospitalization as an inpatient in O'Bleness Memorial Hospital is NOT issued a notification of class absence. However, the student may request that the instructors call the Health Center for verification of the fact of the student's hospitalization on certain days.

C. A student who receives medical or dental care as an outpatient at the Hudson Health Center will not be issued a notification of class absence. However, the student may request the instructors to call the Health Center (the attending physician, if possible) for verification of receipt of outpatient care on a given day. It is assumed that students visiting the Health Center as outpatients will do so without missing classes whenever possible.

D. A student who receives medical care from health care personnel or facilities other than the University Medical Services is expected to present the instructors of classes necessarily missed for this reason with verification of the date(s) such care was received from the attending physician or dentist.

## GRADUATION REQUIREMENTS

### Application

A student who is a candidate for graduation must make application in the Office of Student Records and pay the application fee no later than the deadline listed in the academic calendar of the quarter in which graduation is planned. This application initiates the process which informs the student's college to check fulfillment of degree requirements. The process culminates with the reflection of the college, major, degree and the date of granting degree on the student's permanent (academic) record. The application fee for a bachelor's degree is \$15 and for an associate degree, \$7.50.

If an applicant fails to meet the requirements for graduation, he or she may reapply for the quarter in which completion of the requirements is planned. The reapplication fee is \$5.

A candidate for a bachelor's degree must have a minimum of 180 quarter hours of credit with all college requirements met. For the associate degree a minimum of 90 quarter hours is required.

### Scholastic Average

To meet the minimum standards for graduation from Ohio University, a student must have a point-hour ratio of 2.0 (C) on all hours attempted. The need for this 2.0 average applies to the student's total record and to the total major or equivalent as determined by the college.

### Major Areas of Study

Requirements for majors and fields of concentration are outlined by the individual colleges. A transfer student who has completed most or all of the courses in a major area of study at another institution may be required to satisfy the departments concerned that Ohio University standards in that area have been met.

### Residence Requirements for Graduation

Residence credit is defined as credit earned by regular enrollment at Ohio Uni-

versity on the Athens campus, on any of the regional campuses, by any of the approved programs abroad, by any approved student teaching, by independent study and Course Credit by Examination arranged through Ohio University's Independent Study Program, by degree credit earned through continuing education or by any combination of these.

The minimum requirement for students who complete fewer than 90 quarter hours at Ohio University is the final year (three quarters) with 45 hours of credit. For a student who completes 90 or more quarter hours of Ohio University credit, the final quarter shall be in residence as defined by the residence requirement above.

If a student begins graduate study before completion of all requirements for a bachelor's degree, residence for the bachelor's degree will be reduced by as many weeks as credit hours of graduate work completed. The number of weeks subtracted will be credited toward the residence requirement for a master's degree if the credit is acceptable in the program approved for graduate work toward a degree. Residence used for meeting requirements for one or more bachelor's degrees may not be used for meeting the residence requirements for a master's degree.

The residence regulations apply to a student who has been approved for graduation *in absentia* and is completing the last year in an accredited institution, except that the regulations apply to residence before the student leaves the University.

The residence requirements also apply to the associate degrees.

Problems related to the residence requirements should be discussed with the student's academic dean. In certain cases exceptions to the residence requirements may be made.

### In Absentia

*In absentia* permission is obtained in writing from the dean of the college in which the student is enrolled. To obtain the bachelor's degree a student who has been approved for the senior-*in-absentia* privilege in an approved professional school must have completed a full year's work of the quality prescribed for the bachelor's degree at Ohio University, and be eligible for advancement without condition to the second year. The

official transcript from the school must be submitted to the Office of Admissions, Chubb Hall, Ohio University, before the degree-conferring date.

### Time Limit

The time limit for fulfilling the published requirements for a degree is five years from the date of first registration in the University. Requirements instituted subsequent to the student's initial registration are applicable at the discretion of the University. The following additional regulations apply:

1. A student who is advanced to a degree college at the end of the first year, and who does not change his or her major or equivalent, fulfills the requirements in effect at the time he or she first registered in the University.
2. A student who is retained in the University College for more than one year fulfills the requirements in effect at the time he or she enters the degree college. If major or equivalent is changed the student fulfills the requirements in effect at the time he or she makes the change.

A transfer student is governed by the same regulations, except that the number of years in which to complete the degree requirements is reduced by the number of years of transferred work.

### Graduation with Honors

A candidate for the bachelor's degree who is graduated with a point-hour ratio of 3.0 up to 3.50 on all hours attempted is distinguished on the commencement program by the notation "with honor," with 3.50 or above, by the notation "with high honor." A student with transferred credit is similarly distinguished if both the Ohio University record and the cumulative record meet the above requirement.

A candidate who has successfully completed a program of study with honors is distinguished in the commencement program and on the diploma with the appropriate notation.

### Granting of Degrees and Commencement

Degrees are granted at the close of each quarter. The annual commencement is held

at the close of the spring quarter. Candidates for spring quarter graduation and recipients of degrees at the preceding summer, fall and winter quarters are invited to attend the exercises.

### A Second Bachelor's Degree

A student who desires two bachelor's degrees may meet the requirements for them either simultaneously or successively:

(a) If a student desires to complete the requirements for the two degrees conferred on the same date, he or she must meet the particular subject requirements for both degrees: earn a minimum of 45 approved quarter hours beyond the minimum required for one degree with the requisite scholastic average, both on Ohio University work and credit that has been transferred from another school, and must have completed a total of 13 quarters of college work or its equivalent, with a minimum of five quarters of residence, or the equivalent, at Ohio University. When the two degrees are offered by different colleges, the student must register in both colleges the quarter in which the degrees are to be conferred.

(b) If a student has met the requirements for two degrees as indicated above and desires to have the degrees conferred in successive quarters, he or she may do so without further credit or residence. For example, one degree may be conferred at the end of one quarter and application made for the second degree in a subsequent quarter.

(c) If a student desires to take a second bachelor's degree after receiving the first, he or she must complete the subject requirements for the second bachelor's degree, earn a minimum of 45 acceptable quarter hours beyond the requirements for the first degree with the requisite scholastic average and have at least an additional quarter of residence, or equivalent, in the college offering the second degree with the completion of at least 15 acceptable quarter hours.

### Course Credit by Examination

Course Credit by Examination is designed for students who wish to demonstrate proficiency in a particular Ohio University course. A student may take up to six months after enrolling for credit by examination to prepare for the examination. An information

sheet describing the nature of the examination is used by the student as a guide in preparing. Regular Ohio University credit is granted for a grade of D— or better with the pass/fail option available in accordance with the University regulations for this option. A grade of F is not recorded but in order for a student to retake a course failed in this program, special permission must be obtained. The grade received is used in computing the point-hour ratio of Ohio University students, but enrollment in course credit by examination does not affect the quarterly course load.

Ohio University students must obtain permission from their academic deans to enroll in the program. Others are not required to have permission, but if they plan to transfer the credit to another institution they should ascertain in advance if it will be accepted.

Registration and arrangements for the examinations are made in the Office of Independent Study, Tupper Hall 302. The fee is \$7.50 per quarter hour. Complete information and a listing of the courses regularly available can be obtained at this office.

## SERVICES FOR STUDENTS

### Counseling and Psychological Services

Counseling and Psychological Services, a component of Unified Health Services, provides confidential professional individual or group counseling and/or psychological therapy to undergraduate and graduate students with educational, career and personal problems.

Students having educational difficulties such as not performing up to their potential may receive help in clarifying and resolving their concerns.

Students who are uncertain about their educational and career objectives can obtain help in appraising their abilities, interests, performances and personal characteristics so that they may identify more appropriate and satisfying directions.

Students with personal problems of any kind (emotional, social, marital) may receive assistance in better understanding and resolving their problems.

An occupational library containing infor-

mation about a wide variety of occupations is available without an appointment.

Workshops on a variety of topics, designed to enhance the educational, social and personal growth of students, are offered each quarter.

Any full-time student who wishes to obtain an appointment about educational, career or personal concerns can do so by contacting the receptionist on the third floor of Hudson Health Center (use the side entrance next to Voigt Hall) between 8 a.m. and 5 p.m., Monday through Friday.

### Housing Office

The main function of the University Housing Office is to assist students in acquiring housing on the Ohio University campus.

The Housing Office is responsible for all residence hall and room assignments for students residing in University-owned residence halls and the office initiates all room and board changes.

The assistant director of housing supervises the assignment and maintenance of the married student apartment complexes.

### Housing Regulations

All freshmen and sophomores must reside in University-owned housing and participate in one of the mandatory board plans subject to the exemptions listed below. Status as a freshman and sophomore will be determined on the basis of quarter hour credits earned at the conclusion of the immediately preceding spring quarter for continuing students. Freshman status is defined as 0-44 hours of credit earned and sophomore status is defined as 45-89 hours of credit earned. A sophomore student who has fewer than 90 hours of credit at the conclusion of the spring quarter may petition, if desired, to delay the satisfaction of his or her housing status until the end of the summer quarter in order to earn additional hours and thus have a certified 90 hours at the conclusion of the summer quarter and, therefore, be exempted from the requirement of residing in a University residence hall for a third year. For transfer and re-enrolling students the number of hours earned will be subject to certification by the director of admissions. For relocating students the number of hours earned will be subject to certification by the director of

registration. Failure of a student, subject to this parietal rule, to comply with this condition of registration is cause for denial or cancellation of registration.

The exemptions are: (must be requested in writing)

1. Freshman and sophomore students enrolled for fewer than eight quarter hour credits during the fall, winter or spring quarters and for fewer than three hours during summer session.
2. Married freshman and sophomore students residing with their spouses within commuting distance of the University.
3. Freshman and sophomore students residing with parents or guardians whose permanent residences are within commuting distance of the University campus.
4. Sophomore students living in recognized fraternity or sorority houses.
5. Freshman and sophomore student veterans of 18 months or more active military service.

NOTE: All students with 90 or more hours of credit earned are permitted to reside in housing which coincides with their individual needs. It should be noted that the University bears no responsibility for the living conditions or problems arising therein to either the homeowner or the student resident.

**Special Students.** All special students must comply with the above regulations.

### Residence Hall Rates

Variable room and board rates are available for all students in the residence halls. Room rates range from \$253 to \$295 per quarter. Board plans are available on either a five-day or seven-day basis. The total cost of room and board in the residence halls ranges from a minimum of \$453 per quarter to a maximum of \$540 per quarter.

### Insurance, Major Medical

A major medical insurance plan, specifically designed to supplement the care provided by the University Health Service, is mandatory for students unless a student submits evidence of coverage by a comparable private insurance plan. Coverage by this plan may also be obtained for dependents of married students by the payment of an additional premium.

## Intercollegiate Athletics

### Men's Intercollegiate Athletics

Ohio University is a charter member of the Mid-American Conference which is composed of ten prominent universities of the middle west. The other members are Miami, Toledo, Western Michigan, Kent, Bowling Green, Central Michigan, Eastern Michigan, Northern Illinois and Ball State.

In the administration, financing, organization and management of the intercollegiate athletic program, the University adheres to the policies of the National Collegiate Athletic Association and the Mid-American Conference. All students are encouraged and welcomed to try out for any team of their choice. Ohio University teams go into competition thoroughly coached and trained. This training under excellent leadership makes it a privilege and an honor to participate on athletic teams at the University.

Medical attention for athletic squads is under the direction of a team physician. He has at his disposal the personnel and facilities of a modern university hospital and is aided by a qualified and experienced trainer.

University teams are organized in the following sports: football, basketball, baseball, track, wrestling, cross country, golf, soccer, tennis and swimming. Any student interested in the athletic grant-in-aid program or any student wishing to try out for a team should contact the head coach of the sport(s) directly.

### Women's Intercollegiate Athletics

The Ohio University women's intercollegiate athletic program is affiliated with and follows policy recommendations made by the Association of Intercollegiate Athletics for Women. Ohio University is a member of the Ohio and Midwest Associations of Intercollegiate Sports for Women, which sponsor national qualifying tournament competition at state and regional levels.

Women's athletic teams have at their disposal the finest medical and athletic facilities the University can provide. Women compete in nine sports at the intercollegiate level: field hockey, basketball, softball, swimming, golf, tennis, volleyball, track and field and lacrosse. A limited number of Special Talent Awards are available each year to students participating in intercollegiate athletics. All inquiries concerning these

awards should be sent to the director of Women's Intercollegiate Athletics.

## International Students

**Admission.** Information concerning the admission of undergraduate foreign students may be obtained from the Director of Admissions, Chubb Hall. Graduate students should contact the Graduate College Office, Graduate Building.

**Financial Aid.** There is a very limited amount of financial aid available for undergraduate foreign students. This is in the form of awards for tuition and/or room and board and is administered by the foreign student advisor. Applications for the scholarships are available after February 15. The awards are announced in May and apply to the following academic year. Selection is based upon need, academic achievement and the recommendation of faculty members.

**International House.** A centrally located dormitory offers a special program for roughly equal numbers of foreign and American students. The emphasis is on cultural interaction and mutual understanding. Here, also, is found the International Center with its recreation room, program area, kitchen, lounge and offices of the International Students Association. For more detailed information, contact the foreign student advisor or the director of housing.

**Associations.** The International Students Association is the major organization of foreign students at Ohio University. It represents a number of smaller groups comprised of students from a single nation or cultural area, and with their cooperation sponsors a number of events throughout the year.

**Ohio Program of Intensive English (OPIE).** The OPIE program administers English proficiency examinations to all new foreign students and provides intensive language instruction for those needing it. See p. 154 and p. 267 of this bulletin for descriptions of the program and courses.

**Services.** The foreign student advisor is available for consultation on all matters of interest to foreign students, including immigration, financial and personal problems. All new students from abroad should report to their advisor's office upon arrival in Athens.

Operation Friendship provides foreign students with an opportunity to travel to a host city in the State of Ohio, receive an insider's view of that city and visit for several days with Ohio University alumni. The program permits students to experience American city life in considerable depth and to share their own cultures with a wide range of Americans. These visits are usually arranged to coincide with holidays and quarterly recesses.

## Intramural Sports and Recreational Activities

The University offers an extensive program of intramural sports for men and women. Students are encouraged to make use of available facilities in their leisure time. This provides a way for students to participate in sports and recreation. Upon request, clubs will be organized in sports or physical recreation activities as facilities and personnel are available.

## Library

Alden Library houses the main collection of over 797,000 volumes, including periodical sets and documents. Current issues of over 6,375 periodicals and newspapers are available, plus extensive microform resources.

Built at a cost of nearly eight million dollars, the seven-story, air-conditioned structure has a capacity of 1,400,000 volumes and seating accommodations for 3,200 students.

**Other Collections.** To supplement the library's book services, special collections of rare books and archives are maintained in the main library. Music and an art slide collection are housed in other buildings, and departmental collections exist among the scientific disciplines. Fully staffed separate libraries serve the regional campuses.

Separate facilities in the main library house the Fine Arts Library, Special Collections, Governmental Documents, the Children's Library, the Map Library and the centralized microfilm collection.

**Learning Resources Center.** The Learning Resources Center, also housed in the main library, provides audio/visual facilities and services to the entire faculty.



**Library Science Courses.** In 1974-75, six courses in library science were offered by members of the library staff.

## **Medical Services**

The Unified Health Services facilities are located in the Hudson Health Center. They include Medical Services, Health Education Services, Counseling and Psychological Services and Environmental Health and Safety Services. Medical Services include an outpatient clinic; complete ancillary services, including x-ray, clinical laboratory, physical therapy, pharmacy and a dental clinic.

The Medical Services staff includes full-time physicians; a dentist; a pharmacist; a coordinator of health education services; registered nurses, and registered laboratory, x-ray, and other allied personnel.

A continuous health record is maintained on each student, beginning with the report of medical history submitted by each entering student. This report (and a tuberculosis skin test accomplished by the University Medical Services) is required for final admission to the University or for reenrollment after an absence of two or more years.

**Major Medical Insurance Plan.** A major medical insurance plan designed to supplement the care provided by the University Medical Services is mandatory for every student registered for more than six hours of credit unless the student submits evidence of coverage by a comparable private insurance plan.

The plan provides protection against major medical and surgical expenses regardless of where the student may be. In addition to the medical and surgical benefits payable under the terms of the group plan contract, an accidental death payment is part of the insurance policy.

To assist married students, a major medical-surgical expense protection insurance plan for dependents is available through the University comprehensive group medical insurance policy.

## **Motor Vehicles**

University policy and regulations state that no student shall drive, operate, park or otherwise use a motor vehicle on the land and property of the University without first registering said motor vehicle with the di-

rector of security. This regulation includes student-owned vehicles, vehicles belonging to parents or relatives (including wives or husbands), vehicles belonging to friends, rental agencies and dealers.

Upon registration the student will be given a decal which must be attached to the vehicle as described in the brochure issued with the decal.

Failure to register a motor vehicle as provided by the regulations will result in a fine and/or disciplinary action.

Two-wheeled motor vehicles are not permitted to operate on University property at any time and are permitted to park only in areas specifically designated as motorcycle parking.

## **Ombudsman of the University**

The ombudsman's primary responsibility is to assist students and other members of the University community in expediting settlement of complaints and grievances. Using broad investigatory powers and direct access to all University officials of instruction and administration, the ombudsman may intervene in the bureaucratic process on behalf of individuals when that process unnecessarily or unfairly impinges upon them.

Those with problems should try the usual channels first but, if all else fails, the ombudsman may prove an invaluable aid. The ombudsman's office is located at 200 McGuffey Hall. No appointment is necessary.

## **Placement and Internship Service**

The Placement and Internship Service, located in Lindley Hall on S. Court Street, is designed to assist all students and alumni who seek career or graduate school information. Those desiring permanent positions in education, business, industry, government or college teaching have opportunities for on-campus interviews with employers and may make use of a wide range of other career information and services.

The Internship Service is designed to help place undergraduates in career-oriented summer jobs with business, industry, government and social service agencies. Information is also available on other summer jobs with camps, resorts, sales organizations, etc.

Students planning to attend graduate school are encouraged to use the Graduate

School and Career Plans Library which contains a wide array of graduate school catalogs and literature on scholarships, fellowships and loans.

## Residence Life

The Residence Life Program is responsible for advising and coordinating 5,000 graduate and undergraduate students in 30 residence halls located on the East, South and West Greens. These residence halls are directed by staff members who participate in orientation programs as well as continual in-service training programs conducted by the Office of Residence Life, located in Chubb Hall, Room 050.

The administrative staff of most residence halls consists of a resident director and a graduate or undergraduate assistant. In addition, there is a resident assistant for each group of approximately 50 students; with the exception of the Freshman Program which will consist of one resident assistant to approximately every 27 students. These staff members are available for advice, assistance in the case of an emergency and general assistance with individual problems.

The resident director works with the students to develop a constructive program of self-government, recreation and cultural experience. Also, he or she participates in orientation programs and serves as an advisor to hall organizations and committees. The resident director is either a full-time staff member or a graduate student. As the representative of the director of residence life, the resident director interprets University and administrative procedures and policies to the students and relays the students' concerns to the personnel staff.

The assistant is a graduate or undergraduate student who works closely with the resident director to help individual students and advise student groups within the hall.

The resident assistants are upperclass or graduate students who assist with the personnel and administrative function of the residence halls. As fellow students and hall residents, they are aware of the academic and social concerns students encounter. They also assist students in their adjustment to academic life and residence hall living.

## Speech and Hearing Services

The Speech and Hearing Clinic offers diagnostic and remedial services without

charge to University students. Clinical services are available to children and adults of the community and surrounding area for a nominal charge. All types of speech and/or hearing disorders in all age ranges are evaluated and receive therapy. The audiological division is equipped and staffed to provide complete hearing diagnostic services, to determine the need for and recommend special kinds of hearing aids and to provide therapy for all types of hearing loss.

A program for language and speech development operates in the on-campus clinic five days a week, and four regional county clinics see over 150 clients every Saturday. Undergraduate and graduate students prepare for clinical practice in public schools, special schools, private clinics, hospital and rehabilitation center clinics or for university teaching and research. Persons wishing counseling about the training program, information about the service program or help with a speech or hearing problem should inquire at the clinic office in Lindley Hall between 8 a.m. and 5 p.m., Monday through Friday.

## Student Financial Aids

Ohio University assists students in furthering their education by providing four types of financial aid: scholarships, grants, loans and employment.

Persons desiring information concerning these types of aid should direct their inquiries to the Director of Student Financial Aids, Chubb Hall, Ohio University, Athens, Ohio 45701 (Phone: 614-594-5471).

## Scholarships

Scholarships are awarded on the basis of the applicant's academic achievement and/or financial need. A current Parents' Confidential Financial Statement is required to be considered for all scholarships with the exception of the Achievement Scholarship, President's Honor Award or Special Talent Award.

**Achievement Scholarships.** Available to incoming freshmen and associate degree recipients on the basis of superior high school academic records (class rank and test scores) and participation in extracurricular activities. Associate degree recipients are required to have earned a minimum 3.3 grade point

average (on a 4.0 scale) on all hours attempted. Achievement Scholarships are renewable for up to four years to entering freshmen and two years to holders of associate degrees pending normal progress toward a baccalaureate degree. Awards range from \$390 for Ohio resident students to \$600 for nonresidents.

#### **General Freshman Scholarships.**

Awarded to high school graduates on the basis of class rank, recommendations, high school activities and demonstrated financial need. Awards range from \$150-\$540 and are renewable. (See General Upperclass and President's Honor Awards.)

**General Upperclass Scholarships.** Available to students who have an accumulative grade point average between 3.0 and 4.0 at the completion of the winter quarter 1975. Students must have earned at least 30 hours of academic credit during the 1974-75 fall and winter quarters. Awards range from \$150-\$540. Demonstrated financial need and college activities are also considered for determination of eligibility.

**President's Honor Awards.** Awarded to students with superior high school and/or college academic records and test scores. Demonstrated financial need *is not* an eligibility requirement for this award. The award is \$150 per academic year and both freshmen and upperclass students are eligible.

**Special Talent Scholarships.** Available to incoming freshmen with exceptional talent in the following areas: art, athletics, creative writing, dance, debate, music, radio-TV, theater. Interested students should direct inquiries regarding the awards to the academic department.

**Corporate Scholarships.** Available to students majoring in specific academic areas (engineering, business, sciences) on the basis of high academic achievement. Eligibility for these awards normally requires demonstrated financial need. Scholarships range from \$300-\$2,000 annually.

**Endowed Scholarships.** Available to students with high academic achievement and demonstrated financial need. Endowed scholarships are made available from the

contributions of alumni and friends of Ohio University and are usually restricted by geographic locality or major. Awards range from \$150-\$2,000 per year.

**National Merit Scholarships.** Awarded to National Merit finalists who indicate Ohio University as their first-choice institution. National Merit Scholarships are four-year awards ranging in value from \$200-\$1,500.

**Foreign Tuition and Trustee Scholarships.** Each year a number of scholarships are awarded to international students. These awards are based upon past academic performance and financial need. Interested students should write directly to International Student Advisor, c/o International Studies, Ohio University, 56 E. Union, Athens, Ohio 45701.

#### **Grants**

(Unlike loans, grants do not have to be repaid.)

**Ohio Instructional Grants Program (OIG).** A financial aid program funded through the State of Ohio. The objective of the program is to assist in eliminating the economic barrier which may discourage promising Ohio students from pursuing a post-secondary educational opportunity.

Ohio Instructional Grants are awarded on the basis of relative financial need. The grants may be awarded to the average as well as to the superior student. It is estimated that during the 1975-76 academic year the awards will range between \$90-\$600. Applications are available from the Ohio Board of Regents, Student Assistance Office, State Office Tower, Room 3648, 30 East Broad Street, Columbus, Ohio 43215. OIG can also be obtained from high school guidance counselors.

**Basic Educational Opportunity Grant Program (BEOG).** A federal aid program designed to provide financial assistance to those who need it to attend post-high school educational institutions. It is estimated that during the 1975-76 academic year the awards will range between \$50 and \$1,400.

Applications may be obtained by contacting the guidance counselor at your local high school or the Director, Student Financial Aids at Ohio University. If you need assistance in completing the form or if you

do not receive a response to your application within six weeks you should write: BEOG, Box C, Iowa City, Iowa 52240. Be sure to include your name, address and social security number.

**Supplemental Educational Opportunity Grants (SEOG).** Normally awarded to undergraduate students who come from historically low-income families or demonstrate need. Recipients are selected from students who have submitted financial aid applications. Grants range from \$200 to \$1,000 per academic year depending upon the amount of financial assistance that the parents are expected to contribute to their son's or daughter's education.

**Law Enforcement Educational Grants.** Available on a limited basis to law enforcement personnel already employed full-time by local, state or federal law enforcement agencies. The value of the grants covers instructional fees and books up to \$750 per year. Interested students should request special Law Enforcement Grant applications from the Branch Coordinator, Student Financial Aids, Chubb Hall, Ohio University, Athens, Ohio 45701.

## Loan Funds

**National Direct Student Loans.** Federal loans up to \$1,000 per year are available to undergraduate students under this program. No interest is charged on the direct loan while the student remains in school. Nine months after the student terminates his or her educational program the repayment period begins with a three percent interest rate. Repayment may extend over a ten-year period. Provision is made for partial cancellation of the loan if the student becomes a teacher in an area having a high concentration of low-income families. The exact amount of the loan is determined by demonstrated financial need. A cosigner, preferably the student's parent or guardian, is required in all cases and all loans must be secured by a note.

**Alumni Combined Loan Funds.** The following Ohio University loan funds have been combined into the Alumni Loan Fund: Alumni, Campus Affairs Committee, Men's Union Emergency, Shaw, Student Council, Women's League, Engineers, Lichter and G. F. White Loan. The fund provides emer-

gency loans to students who are in need of the funds to pursue an education. In addition, students must (1) have a reliable source of repayment, (2) be pursuing a full-time course of study and (3) have completed at least one quarter of work at Ohio University if an undergraduate. Maximum amount of the loan is \$300 for freshmen and sophomores and \$500 for juniors, seniors and graduate students.

**Fenzel Loan Funds.** The Fenzel and Parks Loan Fund donations have been combined to produce an emergency short-term loan program. The Fenzel Fund is used exclusively for 30-, 60- and 90-day loans. The loans may be made for any purpose, do not require a cosigner and offer a maximum amount of \$300.

**Student Reserve Loan Fund.** Students with guaranteed sources of repayment are eligible to apply for student reserve loans to pay University bills. Foreign students with periodic allocation of funds, veterans with monthly G.I. Bill benefits, graduate students on University contract and students receiving social security payments or employed through the work-study program are examples of students who qualify for the fund.

**Bishop Loan Fund.** Loans up to \$800 per academic year are available to students admitted to the College of Business Administration. Both short-term emergency and long-term after-graduation loans are available through the Office of Student Financial Aids.

## Employment

**College Work-Study Program Employment.** Students may earn a portion of their educational expenses through part-time employment in the College Work-Study Program. Employment opportunities generally coincide with the student's academic major. Students must demonstrate financial need to qualify for this program. Full-time summer employment is also available to qualified applicants from southeastern Ohio communities. Students approved for Summer Work-Study employment generally save 80 percent of their earnings to meet expenses for the upcoming academic year. Inquiries and applications should be forwarded to: Director, College Work-Study Program, Student

Financial Aids, Chubb Hall, Ohio University, Athens, Ohio 45701.

**The Centralized Student Employment Service.** All Ohio University student employment opportunities are posted in a centralized location in the Office of Student Financial Aids (Chubb Hall 020). Students desiring part-time work who do not apply or qualify for the College Work-Study Program may apply for student employment. The office maintains complete listings of employment opportunities and provides a referral service. Demonstrated financial need is not a factor. Employment applications are available in the Office of Student Financial Aids, Chubb Hall 020.

### **Student Life Programs**

**Student Life Programs.** The Student Life Programs area encompasses and coordinates nearly all out-of-class activities at Ohio University.

The Student Life Office is located in 310 Baker Center. Two professional staff people, one secretary and three undergraduate student interns help plan and administer programs, communicate with students and student organizations and act as a focal point for the coordination of lecture, cultural and entertainment programs. They also help students maximize their input into the decision-making process at Ohio University.

**Public Occasions.** The Public Occasions Office, located in Memorial Auditorium, provides professional assistance, advice and support for University students and staff in the selection and provision of a variety of entertainment for the community, and coordinates and administers all entertainment which takes place in Memorial Auditorium and the Convocation Center (excluding ICA).

**The Helen Mauck Galbreath Memorial Chapel.** The chapel provides for the University and Athens communities an interdenominational center for individual and group meditation, worship, programs or ceremony. It is open daily and is available to any student, faculty or staff person for weddings, receptions or services.

**Cultural Activities Committee.** This committee is composed of students, faculty and

administrators whose job it is to plan the University Artist Series, a diversified program of the performing and visual arts.

**University Student Activities Council.** This University standing committee, which has a predominance of students, coordinates all programming on campus and is a recommending body for policies and procedures in the student life area. It is responsible for the allocation of approximately \$40,000 to student organizations. Its subcommittees—Student Financial Board, Campus Entertainment Committee, Student Lecture Series, Film Board and Campus Organization Subcommittee—do much of the programming.

**The Lindley Student Center.** Set up in the spring of 1975, the center offers a unique combination of social and recreational facilities. Its programs are especially geared to meet the needs and interests of black students, but it is not exclusively for blacks. White and international students are invited to frequent the center in order to experience what may be a new exposure to black culture. The center has developed a multi-dimensional program, including the recreational, social service aspects, plus educational/cultural programming. The center is on the ground floor of Lindley Hall, next to the minipark.

**The Student Government.** Elected by the undergraduate student body, this group speaks for students on University policy and other student-interest issues which arise. It also recommends student appointees to University standing committees. The structure, formerly a 13-member board, will be examined and possibly restructured during the summer and fall of 1975.

**University Women's Center.** Located on the second floor of McGuffey Hall, the University Women's Center was officially added to the Student Life Programs during the 1974-75 school year. Under the direction of a member of the student life staff, the Women's Center provides a place within the University for women to interact. The center enables women to plan programs such as rape prevention sessions and career planning to meet their special needs. All programs are geared toward supplementing existing services for women, rather than duplicating already existing programs. It

should be noted that programs presented by the Women's Center are open to all students. Some special interest programs will appeal to male students, although most are directed primarily towards women.

**Handicapped Student Services Office.** The Handicapped Student Services Office has been established within the Student Life Programs to meet the needs of the handicapped on campus. The office is the co-

ordinating body disseminating information concerning services available for students with disabilities. The Handicapped Student Services Office acts as an advocate for handicapped students at the University—surveying the needs of these students and developing programs to meet those needs. The office also acts as a liaison with the local offices of the Bureau of Vocational Rehabilitation (B.V.R.) and the Bureau of Services for the Blind (B.S.B.) to help coordinate services for handicapped students.

# The Colleges and Curricula



## The University College

Don M. Flournoy, *Dean*

Robert M. Wieman, *Associate Dean*

James S. Hartman, *Assistant Dean*

William L. Allen, *Assistant to the Dean*

University College is designed primarily to meet the needs of freshman students who are undecided about their educational and career goals, special students, associate degree students on the Athens campus and the four regional campuses and students seeking degrees through the Bachelor of General Studies Program. The college staff manages orientation/advisement programs, such as Precollege, which assist students in reviewing their interests, planning academic programs and adjusting to University life.

In addition, University College attempts to implement and make available a much broader set of academic options for undergraduates at all levels. Such options include the Student Development Program, Freshman Interdisciplinary Courses, University Professors, Undergraduate Teaching Fund, Air Force and Army ROTC and others. Following is a list of some of the programs sponsored by University College.

### UNIVERSITY COLLEGE PROGRAMS

#### Academic Advising and Counseling

No single activity of University College requires more time or is given a higher priority than advising and counseling. It is the responsibility of University College to inform students about the existing academic options and assist them in coming to deci-

sions about how they can best use the University to facilitate their growth and development.

Entering students able to identify a potential area of study are admitted directly to the degree college of their choice and are assigned faculty advisors. Undecided students or those who wish to explore several academic options prior to settling into a major are admitted to University College. They, as well as associate degree, general studies and special students, are assigned University College counselors. In addition, upperclassmen in all colleges may seek out counseling in University College when their questions touch on University-wide issues or are related to special University College programs.

Students in the University College are encouraged at entry to follow the requirements of degree programs. There are no freshman requirements common to all students; students with tentative majors should refer to those requirements as outlined in the University Bulletin. Courses are offered in the areas of humanities, mathematics, natural science and social sciences. Students are normally expected to enroll for 15 hours per quarter, although they may take up to 18 hours without additional cost.

#### Precollege Freshman Program

Each year during July and August University College conducts an academic orientation program designed to acquaint



freshmen and their parents with the programs of the University. Precollege results in a completed schedule and registration for each student. Students meet with undergraduate student counselors, University College professional counselors and faculty advisors for assistance in planning their academic programs. One-day orienting and advising programs are also held following Precollege and prior to the winter and spring quarters for freshmen who arrive late and for transferring, reenrolling and relocating students.

### **Student Development Center**

Under a grant from the Ohio Board of Regents, the University College sponsors a student development program which is designed to help the student successfully master university-level work. Supporting services include counseling, tutoring, reading, study skills; and writing improvement, as well as group instruction in special subjects. No additional fees are charged for these services.

### **Freshman Interdisciplinary Courses**

University College sponsors each year a series of special interdisciplinary courses for freshmen. The courses vary from year to year and are particularly appropriate for exploratory students. Courses are available for one to ten hours of credit.

### **University Professors**

To acknowledge outstanding undergraduate teaching, students of Ohio University each year select from one to ten University Professors. University Professors are full-time faculty who have demonstrated teaching ability and an effective insight into educational processes. Each has freedom to teach courses of his or her choosing and is awarded \$1,000 for educational support or professional development during the academic year of the appointment. At the present time this program is limited to the main campus.

The University Professor Selection Committee consists of three student representatives from each undergraduate college (appointed by the dean), a student appointed by the dean of Afro-American Studies and six members-at-large elected by the other committee members.

The selection procedure has three parts:

1. Campus-wide nominations by ballot of outstanding full-time professors. This occurs during preregistration week of fall quarter.

2. Selection of the top nominees as a result of committee examination and class visitation during winter quarter.

3. Official appointment by the executive vice president and dean of faculties after consultation with the respective department chairmen and deans.

## **DEGREE PROGRAMS**

### **BACHELOR OF GENERAL STUDIES**

The Bachelor of General Studies Program provides an opportunity for undergraduate students at Ohio University to design their own education. The student with high motivation, an exceptional background or an unusual combination of talents and interests may find this degree program useful in attaining his or her goals. The program is geared toward four categories of students: 1) the student who is undecided about career goals and wishes to utilize the University resources to find out who he or she is and what he or she wants to become; 2) the student who desires to obtain an education motivated only by self-interest with no apparent intent to utilize the education for career purposes; 3) the student who knows what it is he or she wants to become but wishes to pursue a nontraditional approach in attaining that goal, and 4) the student who wants to combine the available University resources to create an entirely unique field of study not currently available in the curriculum offerings.

Students seeking to enter graduate school or one of the established professions may find that following the patterns suggested by the various disciplines may be more useful to them simply because the traditional degrees have greater visibility in the world and will more readily suggest the nature of their academic accomplishments to others. The Bachelor of General Studies Program is an acknowledgement that the existing degree programs, as varied as they are at Ohio University, cannot satisfy the legitimate educational requirements of all students. The

general studies program provides the means by which individual students may, with the help of a University College counselor, determine the structure of their own degree programs.

To enter the general studies program, the student must complete an application form which is available in the University College Office and have the completed application reviewed by a member of the University College staff. Final admission to the general studies program is granted only upon review of the application by the Bachelor of General Studies Review Sub-Committee which is composed of students, faculty and administrators.

You must have met the following criteria before submitting an application to the general studies program for consideration:

1. You must be currently enrolled with regular student status.
2. You must have achieved at least sophomore rank.
3. You must have earned an overall 2.0 accumulative grade point average.

A student must meet the following requirements to graduate in the general studies program:

1. Earn 180 credit hours, at least half of which must be in junior-senior level courses (courses whose catalog numbers are at the 300 level or above as determined by the *Ohio University Bulletin*).
2. Earn a minimum of a 2.0 accumulative grade point average based on the 180 credit hours.
3. Complete no fewer than 45 credit hours of Ohio University credit (BGS residency requirement) after being admitted to the general studies program, excluding any courses registered for prior to admission to the program. This includes any transfer, transient, Course Credit by Examination, Independent Study Through Correspondence coursework, etc., for which the initial registration was completed prior to seeking admission to the general studies program.
4. Complete a minimum of 45 credit hours in a self-selected area of concentration which has been approved by the Bachelor of General Studies Review Sub-Committee. The 45-hour concentration area is designed by the

student and may include either work from one department or a combination of coursework from two or more related departments. The courses included in the concentration area become course requirements for graduation subject to change only by receipt of prior permission from a University College counselor and in some cases Bachelor of General Studies Review Sub-Committee. The prospective general studies student is advised to work closely with a faculty or resource person in the field of interest to elicit suggestions for constructing an appropriate program of study.

Applications may be submitted at any time during the quarter except in the case of seniors. Seniors must submit completed applications no later than the end of the fifth week of the quarter (end of two and one-half weeks during summer) to have current credit hours included as part of the total 45 credits needed after admission to the general studies program (subject to the exclusions listed in item 3 above, etc.). The deadline to submit applications and have current credit hours included as part of the BGS residency requirement are as follows:

Fall Quarter 1975-76

Deadline—October 28, 1975

Winter Quarter 1975-76

Deadline—February 9, 1976

Spring Quarter 1975-76

Deadline—May 3, 1976

Summer Quarter 1975-76

Deadlines—1st Session—July 7, 1976

2nd Session—August 11, 1976

## ASSOCIATE DEGREES

University College offers several programs of study leading to the associate degree for students who plan to spend only two years at the University. The residence requirement for associate degrees is less than that for baccalaureate degrees and is stated on page 38 of this bulletin. Application for the degree is made at the Office of Student Records at the time announced for all degree candidates and must be accompanied by a fee of \$7.50. Associate degree candidates are encouraged to participate in the annual commencement exercises with all other degree candidates.

There are four categories of associate degrees offered by Ohio University:

1. Associate in Arts
2. Associate in Individualized Studies
3. Associate in Applied Business
4. Associate in Applied Science

The minimum requirement for an associate degree is the completion of 90 credits with a 2.0 accumulative average at graduation. Additional requirements for each degree follow this section.

Credit earned while enrolled in an Ohio University associate degree program will be applied toward an Ohio University baccalaureate degree program. The shift from an associate to a baccalaureate degree program may involve spending additional time in completing the four-year requirements for two reasons: 1) prerequisite courses may not have been completed and 2) technical courses will apply only as elective courses in most four-year degree programs.

Information about all associate degree programs is available through either the regional campuses or University College. Students who plan to pursue an associate degree program must consult with the director of the specific program and/or with a member of the counseling staff of the regional campus or University College.

The student's academic records must be in the college responsible for the degree at the time he or she applies for and receives the associate degree (College of Arts and Sciences for mental health technology, University College for all other two-year degrees). If a student plans to apply for and receive both an associate degree and a baccalaureate degree simultaneously, the student's academic records will reside in the college responsible for the baccalaureate degree. It is the student's responsibility to insure that he or she is enrolled in the appropriate college.

### **Associate Degree After a Baccalaureate Degree**

A student who has already earned a baccalaureate degree may pursue an associate in applied business degree or associate in applied science degree if the two-year degree is in a field other than that in which the baccalaureate degree was earned. It is also permissible for a student to pursue an associate in individualized studies degree after earning a baccalaureate degree de-

pending on the rationale for doing so and the desired area of concentration. The associate in arts degree is not normally an appropriate degree objective for one who has already earned a baccalaureate degree. Requests for exceptions to this policy will be considered on an individual basis by the Associate Degree Sub-Committee.

#### **Associate in Applied Business Degree.**

Available only in general secretarial technology (Chillicothe and Lancaster campuses) and real estate technology (Chillicothe). See details under the specific program.

#### **Associate in Applied Science Degree.**

Available only in aviation technology (Athens), human services technology (Chillicothe), law enforcement technology (Chillicothe), library media technology (Lancaster), nursing (Zanesville) and radio-television, either technology or performance-production (Zanesville). See details under specific programs.

**Associate in Arts Degree.** Available on all campuses. The 90 required credits must include 30 credits of arts *and* humanities, theory courses (some credits in each area), 15 credits of social and/or behavioral sciences and 15 credits of natural sciences and/or mathematics. The remaining 30 credits may be of the student's own choosing. The only exception to these requirements is the specific curriculum required for the Mental Health Technology Program (Athens campus) which currently leads to the associate in arts degree.

#### **Associate in Individualized Studies Degree.**

Available on the Athens, Chillicothe, Ironton and Lancaster campuses. Students who wish to pursue a two-year program of study in a field other than those available through one of the other associate degree options may design their own programs of study to meet their particular goals through the self-designed Associate in Individualized Studies Degree Program.

To be admitted to the program, the student must complete an application available in the University College Office or at one of the regional campuses and schedule an interview with a member of the counseling staff of the regional campus or University College. Final admission to the program

is granted only upon review of the application by the Associate Degree Sub-Committee.

Although there are no specific course or academic area requirements, the application must outline the student's intended course of study and include a proposed area of concentration.

The student must indicate two resource (advisory) faculty and/or staff members who have been consulted in the preparation of his or her program, one of whom must be from the student's area of concentration.

To submit an application for admission to the program, the student must be a currently enrolled *regular* student. Requirements for the associate in individualized studies degree are:

- 1. 90 quarter credits of work.
- 2. 2.0 accumulative grade-point average.
- 3. No fewer than 30 credits of work to be taken after admission to the program.
- 4. Completion of the approved area of concentration.

Students planning to earn the associate in individualized studies degree in one of the following areas should follow the prescribed curriculum already established by the parent department: corrections (Law Enforcement—Chillicothe), child development (Home Economics—Athens), engineering aide (Physics—Chillicothe), foods and nutrition (Home Economics—Athens), interior design (Home Economics—Athens) and textiles and clothing (Home Economics—Athens).

Aviation Technology

The University College and the Aviation Department offer an associate in applied science degree in aviation technology. Completion of this program will prepare students for career opportunities in commercial aviation as pilots and air crew members as well as positions in related aerospace industries. Interested students should consult with Mr. Francis Fuller at the airport.

Freshman

Fall	
Avn 110 Primary Ground Instruction	4
Eng 171 Topics in Literature	5
InCo 101 Fundamentals of Speech	3
IndT 220 Small Engines	3
HPEM 100 Physical Education	1
	16

Winter

Avn 240 Primary Flight Instruction	4
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InCo 103 Public Speaking	4
Eng 175 Contemporary Issues: Special Topics	5
Econ 101 Economics	4
	17

Spring

Avn 340 Intermediate Flight I	4
Econ 102 Economics	4
Psy 101 General Psychology	5
HPEM 100 Physical Education	1
	14

Sophomore

Fall

Avn 343 Intermediate Flight II	4
Avn 310 Commercial Ground Instruction	4
PSc 101 Physical World	3
Geog 311 Meteorology	5
	16

Winter

Avn 420 Commercial Flight Course	4
Avn 315 Flight Instructor Ground Inst.	4*
Avn 450 Instrument Flight Instructor	2
Avn 415 Instrument Ground Instruction	3
PSc 102 Physical World	3
	16

Spring

Avn 448 Instrument Flight	3
Avn 445 Flight Instructor Flight	3*
Avn 418 Instrument Instructor Ground	3
Avn 421 Airline Transport Ground	4
CS 150 Computer Science Survey	3
	16

\*Avn 443 plus 5 credits of electives may be substituted for Avn 315 and 445.

General Secretarial Technology

Ohio University-Lancaster offers a two-year program leading to an associate in applied business degree in general secretarial technology. This program prepares the student to enter top secretarial positions in business, industry and the professions. The program is weighted heavily in courses in business administration and much emphasis is placed on the development of manipulative and managerial skills. A limited number of elective courses will permit some specialization in an area of particular interest.

Freshman

Fall

GST 111 Beginning Shorthand	3
GST 121 Beginning Typing	3
Econ 101 Principles	4
Eng 181 Contemporary Writing Skills	5
Elective	1-3
	16-18

Winter

GST 112 Intermediate Shorthand	3
GST 122 Intermediate Typing	3
Acct 101 Managerial Accounting	4
Psy 101 General Psychology	5
InCo 103 Public Speaking	4
	19

Spring	
GST 113 Advanced Shorthand	2
GST 123 Advanced Typing	3
GST 231 Office Machines	4
Acct 102 Managerial Accounting	4
BA 101 Business and Its Environment	4
OR	
BA 111 History of American Business	4
	17

## Sophomore

Fall	
GST 241 Dictation and Transcription I	3
GST 252 Office Methods Procedures	4
Fin 225 Managerial Finance	4
Mgt 200 Principles	4
	15

Winter	
GST 242 Dictation and Transcription II	3
GST 249 Internship I	3
GST 250 Seminar I	2
GST 262 Report and Letter Writing	4
Mkt 201 Introduction to Marketing	4
	16

Spring	
GST 293 Seminar II	2
GST 299 Internship II	3
BusL 255 Law and Society	4
CS 150 Computer Science Survey	3
	12

## Human Services Technology

Ohio University-Chillicothe offers a two-year program leading to an associate in applied science degree in human services technology. The program prepares students for employment in agencies and institutions such as mental hospitals and clinics, correctional facilities, drug abuse programs, social services and others providing human services. Students interested in admission to the program should contact the human services technology office at the Chillicothe campus.

## Freshman

Fall	
HST 101 Principles of Behavior	5
HST 102 Introduction to Human Services	3
Psy 101 General Psychology	5
	13

Winter	
Eng 181 English Composition	5
HST 110 Practicum	3
HST 170 Group Dynamics I	4
Zool 101 Principles of Biology	5
	17

Spring	
HST 125 Psychological Assessment	4
HST 150 Behavior Management I	3
HST 171 Group Dynamics II	3
InCo 101 Fundamentals of Speech	3
Zool 382 Topics in Zoology-Psychopharmacology	3
	16

## Sophomore

Fall	
HST 200 Personal Management	3
HST 151 Behavior Management II	4
EdGS 410 Human Relations	3
HST 210 Practicum	5
	15

Winter	
Soc 101 Introduction to Sociology	5
InCo 404 Interviewing	3
HST 152 Behavior Management III	4
HST 220 Practicum	5
	17

Spring	
Psy 332 Abnormal Psychology	5
HST 275 Community Resources	3
HST 250 Practicum	4
Elective	4
	16
HST 290 Special Problems	1-10 repeatable

## Law Enforcement Technology

Ohio University-Chillicothe offers a two-year program leading to an associate in applied science degree in law enforcement technology. This program prepares the student for employment in law enforcement by providing academic preparation for the contemporary officer. Career opportunities may be available in areas such as state highway patrol, local and county law enforcement agencies, corrections, juvenile authorities and as probation officers. A separate two-year program in corrections is also available at the Chillicothe Campus leading to the associate in individualized studies degree. Additional information is available from the Law Enforcement Technology Program director.

## Freshman

Fall	
LET 101 Introduction to Law Enforcement Technology	3
Soc 101 Introduction to Sociology	5
Psy 101 General Psychology	5
HPEM 100G Conditioning and Weight Training	1
Eng 181 Contemporary Writing Skills	5
Continuing Education—Typing (noncredit)	
	19

Winter	
LET 102 Constitutional, Criminal and Civil Law	3
InCo 101 Fundamentals of Speech	3
Govt 102 American National Government	4
Mgt 325 Business and Industrial Communications I or InCo 404	3
HPEC 227 First Aid	4
HPEC 100Q Karate	1
	18

Spring	
LET 103 Police Role in Crime and Delinquency	3
Govt 320 Urban Politics	5
Soc 100 Social Problems	4
HPEC 101B Intermediate Karate	1
BSI 350 The Black Community in the 20th Century	5
	<u>18</u>

Sophomore

Fall	
LET 201 Courts Structure, Procedure, Rules and Tests of Evidence	4
Chem 121 Introduction to Chemistry	5
LET 202 Cybernetics	3
HPEM 100N Gymnastics	1
Art 104 Basic Photography	3
	<u>16</u>

Winter	
LET 203 Law Enforcement Administration and Supervision	3
Soc 362 Criminology	4
LET 204 Vice and Narcotic Control	3
EdGS 410 Human Relations	3
HPEM 100O Handball	1
Elective	3-5
	<u>17-19</u>

Spring	
LET 205 Police Community Relations	3
LET 206 Criminal Investigation	3
LET 207 Traffic Enforcement, Education and Engineering	3
LET 208 Arrest, Search and Seizure	3
HPEM 100X Swimming	1
Elective	3-5
	<u>16-18</u>

Library Media Technology

Ohio University-Lancaster offers a two-year program in library media technology leading to an associate in applied science degree. This program prepares the student for employment as supportive staff in libraries between the professional librarian and the library clerk. Career opportunities may be available in elementary and secondary school libraries, public and academic libraries, business and industry or government agencies.

Freshman

Fall	
LMTC 101 Intro to Library Technology	3
Psy 101 General Psychology	5
InCo 101 Fundamentals of Speech	3
Elective social or natural science	3-5
	<u>14-16</u>

Winter	
LMTC 102 Support Operation for Public Services I	4
LMTC 201 Library Services for Specific Groups I	4
Eng 171	5
Elective social or natural science	3
	<u>16</u>

Spring	
LMTC 103 Support Operation for Public Services II	4
LMTC 104 Support Operation for Technical Serv. I	4
Soc 101 Introduction to Sociology	5
Elective social or natural science	3-5
	<u>16-18</u>

Sophomore

Fall	
LMTC 202 Library Services for Specific Groups II	4
LMTC 204 Support Operation for Technical Serv. II	3
LMTC 206 Audio-Visual Methods and Materials	4
CA 117/317 Comparative Arts	3
	<u>14</u>

Winter	
LMTC 203 Library Technician Internship I	3
LMTC 207 Preparation of Audio-Visual Materials	4
LMTC 208 Support Operations for Technical Serv. III	3
Electives	6
	<u>16</u>

Spring	
LMTC 205 Library Technician Internship II	4
LMTC 209 Seminar	1-3
Eng 201/202 Interpretation of Fiction/Poetry	5
Mgt 200 Management	4
	<u>14-16</u>

Mental Health Technology

The College of Arts and Sciences through the Department of Social Work offers the associate in arts degree in mental health technology. See College of Arts and Sciences Special Curricula Section in this bulletin.

Nursing

Ohio University-Zanesville offers a two-year nursing program. A student who completes the program will receive an associate in applied science degree in nursing and will be eligible to write the State Board Examination for Registered Nurse.

Freshman\*

	Class	Lab	Cr
Fall			
Chem 121	3	3	5
Zool 101	3	2	5
Nurs 101	3	4	5
			<u>15</u>
Winter			
Chem 123	3	3	4
Zool 300	4	4	6
InCo 101	3		3
Nurs 102	3	4	5
			<u>18</u>

Spring			
Zool 310.....	3	1	4
Zool 345.....	4		4
Psy 101.....	5		5
Nurs 103.....	3	6	5
			18
Nurs 104.....	3	12	6

(To be taken during 1st summer term between  
1st and 2nd years)

#### Sophomore\*

	Class	Lab	Cr
Fall			
Psy 173.....	5		5
Nurs 201.....	3	6	6
Nurs 202.....	3	6	6
			17

Winter			
Nurs 203.....	3	6	6
Nurs 204.....	3	6	6
Soc 101.....	5		5
			17

Spring			
Nurs 205.....	3	12	9
Nurs 206.....	3		3
Elective.....	5		5
			17

\*The sequence of the above courses may not be altered without permission.

## Radio-Television Technology

Ohio University-Zanesville offers a two-year program leading to an associate in applied science degree in either radio-television technology or radio-television performance-production. The associate degree in radio-television prepares the student for employment as a technician, or for positions in the production-performance areas of broadcasting. The two-year program in radio-television technology prepares the student to take the examination for a First Class FCC engineering license. The entire program is coordinated with learning experiences at radio-television stations WHIZ-AM-FM-TV in Zanesville.

### Program One (Technology)

#### Freshman

R-TV 106....	4	R-TV 122....	4	R-TV 211....	4
Elective....	3	R-TV 208....	4	Psy 101....	5
Math 113*....	5	Elective....	3	Math 163B....	4
InCo 103....	4	Math 163A....	4	Elective.....	4
	16		15		17

#### Sophomore

Eng 100 level..	5	R-TV 230....	4	Govt 102....	4
R-TV 216....	4	Govt 101....	4	Econ 102....	4
Jour 351....	3	Econ 101....	4	R-TV 490....	8
R-TV 209....	4	R-TV 210....	4	R-TV 498....	2
	16		16		18

\*Math 113 may be waived on basis of adequate high school preparation for Math 163A.

### Program Two (Performance-Production)

#### Freshman

R-TV 106....	4	R-TV 122....	4	R-TV 455....	4
Elective....	4	R-TV 208....	4	R-TV 211....	4
Econ 101....	4	Econ 102....	4	Elective....	4
InCo 103....	4	Elective....	6	Psy 101....	5
	16		18		17

#### Sophomore

R-TV 216....	4	R-TV 230....	4	R-TV 452....	3
Jour 351....	3	Govt 102....	4	R-TV 217....	4
Govt 101....	4	Jour 353....	2	R-TV 460....	4
Elective....	6	R-TV 490....	5	OR	
	17	R-TV 498....	1	R-TV 453....	4
			16	Eng 100 level..	5
					16

Hours must total 100. Suggested electives: Arts or humanities, including comparative arts, music, theater, etc.

## Real Estate Technology

Ohio University-Chillicothe offers a two-year program leading to an associate in applied business degree in real estate technology. This program prepares the student for employment in real estate positions dealing with planning, appraisal, law and management for the larger corporations, the small business man and the homeowner. The program accommodates the recently passed State of Ohio bill which requires real estate salesmen or saleswomen and brokers to complete specialized courses.

#### Freshman

Fall		
Econ 101 Principles.....		4
Math 163A Introduction to Calculus.....		4
RET 101 Principles and Practices I.....		4
Elective*.....		4
		16

#### Winter

Econ 102 Principles.....		4
Math 163B Introduction to Calculus.....		4
RET 102 Principles and Practices II.....		4
Elective*.....		4
		16

#### Spring

Phil 102 Principles of Reasoning.....		3
RET 103 Real Estate Law.....		4
Psy 101 General Psychology.....		5
Govt 101 American National Government.....		4
OR		
Soc 101 Introduction to Sociology.....		5
		16-17

\*Suggested electives: Geog 130, Govt 101, 102, Hist 211, 212, 213.

#### Sophomore

Fall		
Acct 101 Managerial Accounting.....		4
Mgt 200 Management.....		4

InCo 101 Fundamentals of Speech	3
OR	
InCo 205 Techniques of Group Discussion	4
RET 201 Real Estate Appraisal I	4
	15-16
Winter	
Acct 102 Managerial Accounting	4
Mkt 200 Intro to Marketing	4
RET 202 Real Estate Appraisal II	4
RET 204 Real Estate Finance	4
	16
Spring	
Mgt 325 Communication Behavior in Mod. Organ.	4
RET 207 Real Estate Marketing and Management	4
RET 211 Real Estate Government	4
RET 221 Real Estate Seminar	4
	16

## RESERVE OFFICERS TRAINING CORPS

The rationale for reserve officer training stems from a statement by the founding fathers of this nation that we must "provide for the common defense." For young men and women who have the desire and talent to dedicate their time to the service of their country there are many and varied rewards. Today, when science and technology are so much a part of the national defense, and the defense of this nation is so inextricably involved with world problems, our nation needs talented and well-trained officers in its military services. These services need the best managers, administrators, engineers and scientists the nation's schools can produce: officers in command with wide ranges of knowledge and skill. The Reserve Officers Training Corps, in agreement with universities and colleges, is designed to produce these types of men and women for the nation.

There are two ROTC programs at Ohio University: Aerospace Studies and Military Science.

ROTC is divided into two phases: the basic course and the advanced course. The University offers a four-year course and a two-year course for both programs.

**Basic Course Requirements.** In general, any physically qualified student who is a U.S. citizen is eligible for enrollment in the basic course.

**Advanced Course Requirements.** To be eligible for the advanced course a student must meet academic, physical, aptitude and

moral selection criteria; complete either the basic course on campus or the six-week summer camp/field training, following the sophomore year, and enlist in the reserve of the respective service. Active duty commissions are not guaranteed upon successful completion of the program and students may be discharged from the reserve for reasons of academic failure, personal hardship, medical disqualification or inaptitude.

**Scholarships.** Three-, two- and one-year scholarships are available on a competitive basis for all qualified students participating in the programs. These scholarships pay costs of tuition, fees, books and laboratory expenses. In addition, recipients receive a subsistence allowance at the rate of \$100 per month for the period the scholarship is in effect.

**Subsistence Allowance.** All students in the advanced course receive subsistence allowances of \$100 per month.

**Summer Camp/Field Training Allowances.** All travel expenses, board, living quarters and uniforms are furnished and students are paid while attending summer camp/field training.

**Uniforms and Equipment.** Textbooks, training equipment and complete uniforms are loaned to all ROTC students without cost. A student entering the advanced course receives, without cost, a complete officer-type uniform. The newly commissioned second lieutenant receives a \$300 clothing allowance upon entry on active military duty.

**Commissions.** A student who successfully completes the ROTC advanced course and the requirements for a baccalaureate degree will be qualified for the tender of a commission as a second lieutenant in the United States Army or the United States Air Force.

Students who have successfully completed the first year of the ROTC advanced course and have shown evidence of outstanding leadership, scholarship and achievement in extracurricular activities are eligible for appointment as "Distinguished Military Students" (Army) and "Distinguished Cadets" (Air Force). Distinguished Military Students/Cadets may be considered for commissions in the Regular Army or Regular Air Force.



**Special Schooling.** Both departments encourage graduate study and may permit a delay in call to active duty for up to four years for students enrolled in graduate-level study. Selected officers, after entrance on active duty, are sent to civilian universities or service technical institutes for graduate work leading to a master's degree or to the doctor of philosophy degree in a variety of specialized fields.

### **Aerospace Studies Program**

The aerospace studies program is designed to develop the attitudes and skills required of professional Air Force officers. Emphasis is on professional education. The basic goal is to provide to student cadets the background knowledge to become junior officers in the United States Air Force, while acquiring baccalaureate degrees in fields of their own choosing.

The curriculum during the first two years of the basic "General Military Course" (one credit hour per quarter) focuses on the doctrine, mission and organization of the United States Air Force. It also includes studies of the development of air power and present concepts within the Air Force. Included within this framework are elements of national power, an overview of the Air Force, a study of democracy and the actions of nations in their search for world peace. Concurrently with these academic subjects, the student cadet will participate in leadership activities called "Corps Training." These will enable him or her to gain an insight into the dynamics of military leadership as well as become familiar with the customs and courtesies of the military way of life. There is no service commitment during the first two years and it is an excellent way for a student to look at the Air Force as either a career or means of fulfilling a military obligation. The entire basic unit consists of six quarters of study and is entitled General Military Course or GMC.

The advanced curriculum, appropriately named the "Professional Officer Course" or POC, is specifically designed to prepare the student cadet for active duty as a commissioned officer. The course curriculum in the junior year includes study of defense policy making, the military and professional soldier, strategy and arms control. The senior year emphasizes professional responsibilities of Air Force officers within our democratic

society and how the Air Force supports national goals. Studies are made of the military justice system, leadership and principles of management. Through classroom methods of case studies, guest lecturers and dialogue, the senior student cadet experiences a realistic simulation of problems facing the junior officers. The members of the advanced Professional Officer Course develop their leadership skills by working with the freshman and sophomore cadets; they improve their communicative abilities by writing and speaking, and they perform organizational projects similar to those accomplished by active duty Air Force officers. This advanced unit consists of six quarters of on-campus study and a summer quarter of field training which is a prerequisite of the course.

Interested and qualified cadets have the additional option of becoming flying officers. Identification for either pilot or navigator training will be made during the freshman (GMC) year, or for two-year applicants prior to the beginning of the advanced (POC) course. Cadets qualified in the pilot category will receive 36 hours of flight instruction in their senior year which may qualify them for a private pilot's license and entry into the USAF flying training programs after graduation and commissioning. This on-campus instruction will be provided at no cost to the student cadet as part of the Air Force ROTC program. Navigator qualified cadets receive no formal flight instruction until after graduation and commissioning when they will enter the USAF's Navigation Flying Training Program.

After commissioning, each new officer will be assigned to a position within the Air Force structure which best combines his or her academic major and desires with the needs of the Air Force. Past graduates have requested and been assigned to areas of air operations (both flyers and nonflyers); administration, biological, medical, physical and social sciences; engineering; law, and research and development in aerospace technologies.

### **Military Science Program**

The Military Science Program (Army ROTC) is open to all students enrolled in Ohio University and its branch campuses. Leadership and field training and classroom requirements are identical for all students

with the exception that women are not required to take rifle marksmanship and ranger training, but may do so voluntarily.

The Military Science Program is designed to complement the student's goal of acquiring a baccalaureate or graduate degree in his or her selected course of study. This program encourages the student to develop those attitudes, understandings and potentials that are not only significant to the pursuit of a profession in the civilian environment but which will also facilitate transition into the military service should that be selected as a profession. The military science curriculum does not provide technical training in a particular job specialty nor does it emphasize the vocational side. However, it complements and provides a basis for the normal progression to a commission in the United States Army. The objectives of the Military Science Program are to develop and produce young officers who by their level of academic attainment, military education, mature attitude and inherent qualities are suitable for continued development as officers in the United States Army. Every effort is made to commission graduates into the branch or Army specialty of their choosing and for which they are best suited by their academic concentration.

Army ROTC has a four-year program of fully credited elective courses to complement a student's academic major. The average ROTC course load is one two-credit hour course per quarter. There is also a two-year program designed specifically for students who did not take military science during their first two years of college. Any student having two years of college remaining (including graduate school) beginning the fall term may apply to attend the six-week basic ROTC camp during the preceding summer, in lieu of the first two years of ROTC. Veterans with suitable service and academic records may enter the advanced program directly if accepted by the professor of military science.

Financial assistance is available to ROTC cadets in the form of scholarships which are

awarded on a competitive basis. A subsistence allowance of \$100 per month during the school year is paid to all advanced cadets in their junior and senior years and to all freshman and sophomore scholarship cadets. Uniforms are provided by the University at no cost to the student and textbooks for military science courses are provided by the Department of Military Science. Veterans receiving VA compensation are also eligible for the \$100 per month subsistence when enrolled in advanced ROTC.

All cadets are encouraged to compete for the three-, two- and one-year scholarships offered by the U.S. Army through the Military Science Program. Scholarships provide for tuition, fees and books.

Selected advanced cadets may participate in the Army ROTC flight instruction program. Completion of flight training may lead to a career in Army aviation and provides the student with an opportunity to earn a private pilot's license.

Advanced course cadets are required to attend a six-week summer camp, normally between their third and fourth years of ROTC. A few selected cadets will be permitted to attend the U.S. Army Ranger School at Fort Benning, Georgia in lieu of the advanced summer camp.

To participate in the Military Science Program a student must take scheduled classroom instruction and attend scheduled leadership laboratories.

Extracurricular activities sponsored by the University through the Military Science Program are: Small-bore rifle and pistol team, which competes in local matches; Orienteering Club, whose members train for and participate in national and international orienteering competitions, and Pershing Rifles, whose goal is the attainment of the highest degree of professionalism in competitive drill and other basic soldiering skills. These units are supportive to the Military Science Program as advanced training activities and make a significant contribution to the success of this University's officer education program.

## The College of Arts and Sciences

John G. Jewett, *Dean*

Bruce E. Steiner, *Associate Dean*

*Student Affairs:*

William R. Jones, *Assistant Dean, Director of Student Affairs*

Alice O. Kemmerle, *Assistant to the Dean*

Ohio University remained a liberal arts college for almost one hundred years after it was founded. With the expansion of curricula and organization of new colleges and divisions during the last 60 years, the College of Arts and Sciences has held to what has been the central purpose of the college for more than a century and a half: to provide opportunities for the student to secure a general, liberal education. Since its focus is on the more general concerns of humanity, it is broader than, but in many cases includes, an education for immediate application. A liberal education implies teaching which is intended to impart knowledge, to encourage critical-mindedness, to increase the level of objective and quantitative thinking, to demand clear expression and to reveal insights and ideas important to the thinking of free men and women. It also implies active effort on the part of the student to learn what is taught. Its greatest service is in its commitment to reason, in its search for basic knowledge, in its mission to preserve and to give continuity to the value of mankind's many cultures. A liberal education also affords an acquaintance with the language, skills and methods in some schol-

arly area at a level that is more than merely introductory. It prepares the student for advanced graduate or professional training and in some cases for a more immediate vocation. In step with the changing needs of our society, the college has maintained the central purpose of a liberal education while providing professional curricula and area studies based on research and geared to today's career opportunities.

These objectives are achieved through the courses which make up the curricula of the college—courses which historically have been regarded as the means whereby people have come to understand themselves and the world in which they live. These courses have taken a place in our academic disciplines as the result of today's technological and scholarly advances. The student gets specialized knowledge in some particular field through degree requirements, and also gets a fundamental education in the humanities, social sciences and natural sciences. In line with these goals, the following pages illustrate that the AB and BS degrees require specific courses only in the major. Beyond this, the degree requirements are designed to permit students to familiarize themselves

with the languages, humanities, social sciences and natural sciences as separate areas but with considerable freedom within the areas.

## Departments

The College of Arts and Sciences includes the following 18 departments:

- Botany
- Chemistry
- Classical Languages
  - Archaeology and Antiquities
  - Greek
  - Latin
- Computer Science
- English Language and Literature
- Geography
- Geology
- Government
- History
- Linguistics
  - English as a Foreign Language
- Mathematics and Astronomy
- Modern Languages
  - French
  - German
  - Italian
  - Portuguese
  - Russian
  - Spanish
- Philosophy
- Physics
- Psychology
- Social Work
  - Mental Health Technology
- Sociology and Anthropology
- Zoology and Microbiology
  - Medical Technology
  - Microbiology
  - Physical Therapy
- Preprofessional Areas in Zoology

Since a student enrolled in any college at Ohio University may elect courses in any other college with considerable freedom, much of the coursework required by the other colleges is offered by the faculty of the College of Arts and Sciences. A student pursuing a degree in this college may elect courses, and in some instances may complete a major, in departments of the other degree-granting colleges.

A student entering the College of Arts and Sciences is assigned an advisor who teaches in the area of the student's major. Faculty advisors will assist in the preparation of a schedule each quarter so that

proper sequences of courses in the major and appropriate related courses are selected. HOWEVER, THE STUDENT IS RESPONSIBLE FOR SEEING THAT ALL REQUIREMENTS FOR THE DEGREE ARE BEING MET.

## Degrees and Majors

The college offers two four-year degrees—the bachelor of arts (AB) and the bachelor of science (BS).

A major for the AB degree may be completed in the following areas:

- Anthropology
- Botany
- Chemistry
- Classical Languages (Latin)
- Computer Science
- Economics
- English Language and Literature
- Geography
- Geology
- Government
- History
- Mathematics
- Modern Language
- Philosophy
- Physics
- Psychology
- Social Work
- Sociology
- Zoology

Arts and Sciences students may complete the following non-Arts and Sciences majors earning an AB degree:

- Art
- Home Economics
- Interpersonal Communication
- Journalism
- Music
- Theater

A major for the BS degree may be completed in the following areas:

- Botany
- Chemistry
- Computer Science
- Geography
- Geology
- Mathematics
- Physics
- Zoology

Arts and Sciences students may complete a BS degree in the following non-Arts and Sciences major:

- Home Economics

The college offers the associate in arts (AA) degree in mental health technology.

# BACHELOR OF ARTS AND BACHELOR OF SCIENCE DEGREES

Regardless of the major he or she is completing, the Arts and Sciences degree student follows a basically consistent outline to determine the requirements for a particular program. The AB and BS degree programs differ only in the language requirement (see language requirement section below) and in the specific major requirements as designated by the individual departments (see major requirement section below). The AB and BS degree requirements are explained under the following categories:

1. Major Requirement
2. Freshman-Level English Requirement
3. Foreign Language Requirement
4. Humanities Area Requirement
5. Social Sciences Area Requirement
6. Natural Sciences Area Requirement
7. Level of Study Requirement (Hours above 200)
8. Total Hours Required and Credit Allowed
9. The Single Application of Credit
10. Averages Required
11. General Degree Information
  - a. Advising
  - b. Degree in *Absentia*
  - c. Dual Major
  - d. Minor Requirement
  - e. Second Bachelor's Degree
  - f. Teacher Certification
  - g. Time and Resident Load Limitations
  - h. Transfer and Transient Study

## 1. The Major Requirement

The specific requirements for each major in the departments in the College of Arts and Sciences are indicated in the Course Descriptions section of this bulletin. Special curricular requirements for the preprofessional areas (preparation for medicine, preparation for law, etc.) are explained in the Special Curricula section which follows. Requirements for a major in the departments

outside the college are determined by a special advisor in each department.

The college requires that each major consist of a minimum of 36 quarter hours to be completed in one area. This includes nine quarter hours which must be taken at the junior-senior level. Specific departmental requirements must also be met. It should be noted that specific departments require more extensive coursework for the major than these minimal requirements.

Methods courses are not included in the major. The AB degree candidate can count a maximum of 60 hours in one subject toward the degree; the BS degree candidate may count a maximum of 68 hours.

**NOTE:** Most Arts and Sciences departments place restrictions on the student's taking courses in the major by pass/fail. Coursework taken contrary to these restrictions may not count as credit. The student is encouraged to refer to the lists posted in the departmental office and in the office of the dean before taking any work in the major by pass/fail.

## 2. The Freshman-Level English Requirement

This requirement is set by the individual department and varies with the major.

The courses may be selected from 171, 173S, 175S and 181, all of which are five-credit-hour courses. These courses will apply to the humanities area requirement regardless of major.

Major	Hours of Freshman English Required
Anthropology . . . . .	0
Art . . . . .	10
Botany . . . . .	10
Chemistry . . . . .	0
Classical Languages (Latin) . . . . .	5
Computer Science . . . . .	0
Economics . . . . .	0
English . . . . .	5
Geography . . . . .	5
Geology . . . . .	5
Government . . . . .	0
History . . . . .	10
Home Economics . . . . .	5
Interpersonal Communication . . . . .	5
Journalism . . . . .	10

Mathematics . . . . .	0
Modern Languages . . . . .	5
Music . . . . .	10
Philosophy . . . . .	10
Physics . . . . .	5
Psychology . . . . .	5
(plus five hours of Eng 308)	
Social Work . . . . .	0
Sociology . . . . .	5
Theater . . . . .	5
Zoology (Eng 181 required) . . . . .	5

### 3. The Foreign Language Requirement

Courses taught at Ohio University which may be used to fulfill the language requirement are the African and Asian languages (Chinese, Hausa, Indonesian/Malay and Swahili), the classical languages (Greek and Latin), Germanic language (German), Romance languages (French, Italian, Portuguese and Spanish) and Slavic language (Russian).

In each case, the numbers 111, 112 and 113 represent the first (beginning) year of the language and 211, 212 and 213 represent the second (intermediate) year. In the case of Germanic, Romance and Slavic languages, the exceptionally well-prepared student may take language 241 in place of 213. The student majoring in one of these languages must take 241 rather than 213.

#### Candidates For The AB Degree

The AB degree foreign language requirement is a complete two-year sequence through 213 (or 241).

Two years of high school language can be equivalent to one year of college language. The student who has completed two or three years of one language in high school and who wishes to complete the requirement in that language may do so according to the instructions in the table at the end of this section. In the case of Latin, a student with at least two years of high school Latin may also fulfill the requirement by passing Greek 111-112-113 or Lat 211-212-213.

A student who has completed four years of one modern foreign language in high school may complete the foreign language requirement by passing course number 213, or any higher level course in that language. The student with four years of Latin in high school may elect to complete Lat 351 rather

than 213. Of the choices, completion of 351 is recommended.

#### Candidates For The BS Degree

The BS degree candidate may meet the foreign language requirement with proficiency in foreign language(s) equivalent to two years of college study. To determine individual requirements, the student should bear in mind that two years of high school study in a single language is considered equivalent to one year of that language at the college level. Therefore, the student who enters college with two years of preparation in each of two languages or four years in a single language may consider the requirement for the BS degree already filled. The student who has had two high school years in only *one* language may complete the requirement by taking the college intermediate year (211, 212 and 213)\* in the same language or by taking the beginning year (111, 112 and 113) in a *second* language. Credit is not given toward meeting the foreign language requirement for the first and second quarters of a beginning or intermediate year unless the third quarter is also completed.

#### Language Placement Table

*Although the student will not lose credit if it is necessary to repeat high school language work, he or she is advised to begin college work in foreign languages according to the following table:*

Years of language in high school:	Begin college language at:
0-1 year . . . . .	Course 111.
2-3 years . . . . .	Course 211. In the case of Germanic, Romance and Slavic languages, the exceptionally well-prepared student may, with permission, begin with 241.
4-5 years . . . . .	Course 213 (or 241). Degree credit cannot be earned for both 213 (non-major course) and 241 (major course).

\*Note that completion of the college-level beginning year of a language taken for two or three years in high school does not complete the requirement.

If the student chooses to repeat high school language work, the credit earned applies, still, to the language requirement in the regular fashion.

## Foreign Students

Upon entering Ohio University, a foreign student whose native language is not English may satisfy the foreign language requirement by demonstrating competence in English. This must be approved by the director of the Ohio Program of Intensive English and generally requires the completion of one course in English as a foreign language. The student may also satisfy the foreign language requirements by taking a foreign language other than his or her own.

## 4. The Humanities Area Requirement

The humanities requirement may be met by a selection of 18 quarter hours from two or more areas, with at least nine hours in one area, from among the following:

- a. archaeology
- b. art history *except* 334, 337, 338, 339, Film, and 237, 238 and 239, History of Photography
- c. comparative arts
- d. English courses
- e. foreign language courses other than those necessary to complete the foreign language requirement
- f. Gr 127
- g. Foreign Literatures in Translation (modern, classical) and Mythology
- h. Hum 107, 108, 109 or 307, 308, 309—Great Books
- i. philosophy
- j. Music history and literature
- k. Dance 351, 352, 353, Dance Cultures of the World, and Dance 471, 472, 473, History of Dance
- l. History and criticism of oratory
- m. History of theater

## 5. The Social Sciences Area Requirement

The social science requirement may be met by a selection of 18 quarter hours from two or more areas, with at least nine hours in one area, from among the following:

- a. anthropology

- b. business law 255, 370, 442 and 475
- c. economics
- d. geography *except* 101, 301, 311, 312
- e. government
- f. history
- g. international studies 103, 113, 114, 121
- h. linguistics
- i. psychology *except* 226, 312, 314
- j. social work
- k. sociology

## 6. The Natural Sciences Area Requirement

The natural science requirement may be met by a selection of 18 quarter hours from two or more areas, with at least nine hours in one area, from among the following:

### *Biological Sciences:*

- a. botany
- b. Psy 226, 312, 314
- c. zoology

### *Physical Sciences:*

- a. astronomy
- b. chemistry
- c. Geog 101, 301, 311, 312
- d. geology
- e. mathematics *except* 120, 121 and 320
- f. physical sciences (PSc)
- g. physics

Note: Methods courses do not apply to the area requirements.

Some courses not offered by Arts and Sciences departments and not specifically mentioned above (e.g., B. S. I. courses, Honors Tutorial College courses, University Professor courses, University College courses, etc.) may at times qualify for application to one of the Arts and Sciences degree requirements. For the course(s) to be considered for this purpose, the unit (e.g., University College) responsible for the course should submit a written request for such consideration, including a complete description of the course, teaching responsibility and related information to the chairman of the College of Arts and Sciences Curriculum Committee in the office of the dean of the college, *before* the quarter during which the course is scheduled to be taught.

## 7. The Level of Study Requirement (Hours Above 200)

Within the total hours applied to the degree, at least 90 quarter hours of Arts and Sciences (liberal arts) courses must be above the freshman level; that is, they must be numbered 200 or above. Arts and Sciences courses are defined as those courses listed under humanities, social sciences and natural sciences (#s 4, 5 and 6) above.

Non-Arts and Sciences courses which satisfy any of the area requirements (#s 4, 5 and 6 in the outline above) also count toward the 200-level requirement.

Education courses which are required for teacher certification may be applied toward the 200-level requirement only when the student has met all the requirements for teacher certification. These courses count also for the psychology major who plans to enter the graduate program in school psychology, upon written recommendation of the chairman of the Psychology Department certifying individual need and eligibility.

Economics majors may apply to the 200-level requirement a maximum of 15 hours from: QM 200 and 201; 441 and any advanced offering in statistics.

All non-Arts and Sciences courses required by the programs listed under the Special Curricula section which follows will apply to the 200-level requirement for those students who *complete* the given program.

All other non-Arts and Sciences courses are considered to be electives. These are not counted toward the 200-level requirement, but are counted toward graduation.

## 8. Total Hours Required And Credit Allowed

A minimum total of 180 quarter hours for credit is required for either degree. Only the final hours earned when courses are repeated count for graduation.

Noncredit courses (courses numbered below 100) and credits earned by repetition of coursework are not accepted toward the 180 hour requirement. The student should be aware that one may not repeat courses for the purpose of affecting one's grade point average after the completion of higher level courses in the same field. Also, coursework completed in another university cannot be used to repeat coursework taken at Ohio University.

No more than 60 hours in any one subject may be counted toward the AB degree; and no more than 68 hours in one subject may be counted toward the BS degree. See the *Guidelines and General Information* section of this catalog for a description of the residence requirement, which can, for some students, increase the total hours required.

## 9. The Single Application of Credit

No course may satisfy more than one of the area requirements in foreign language, humanities, social sciences, natural sciences or the major requirement. For example, a philosophy major may not apply any courses in philosophy toward the humanities requirement. (Courses required for a major but outside the major department will be counted toward the area requirements.) However, the student majoring in a foreign language may apply courses at the beginning and intermediate level of that language toward the language requirement since the language major is defined as including only those courses above the intermediate level. For teacher certification students, certain courses in the "comprehensive major" may fulfill requirements for the appropriate area; students will need to consult with their advisors on this point. Freshman-level English applies to the humanities area requirement.

## 10. Averages Required

In order to receive a degree in the College of Arts and Sciences, a student must have a minimum point-hour ratio of 2.0 on all of the following:

1. All hours attempted at the college level.
2. All hours attempted at the college level in the major.
3. All hours attempted at Ohio University.
4. All hours attempted at Ohio University in the major.

Only the final hours and points in repeated courses are counted for graduation. However, for the upperclassman, all courses including failures are included on the student's transcript. For repeated courses see the *Guidelines and General Information* section of this catalog. Note that the repeated course policy does not apply to the repetition of a course after a course for which it was a prerequisite has been completed.



The graduation point-hour ratio is computed after deductions for duplicated courses have been made. Note also that courses taken at Ohio University and repeated at another school do not result in deduction of the first grade earned.

## 11. General Degree Information

### a. Advising

The college prepares, on a quarterly basis, current degree information for each student in the form of graduation check sheets and lists of currently enrolled students grouped according to their declared majors. At advising and preregistration time each quarter, the student receives a copy of the check sheet and copies are given to the advisors, whose names are posted on the major lists in the departmental offices. The student consults the list to identify his or her advisor, and should meet with the advisor not only during preregistration, but regularly throughout the year when assistance concerning academic requirements and plans is needed.

It is hoped that the student will develop a close relationship with the advisor concerning the student's academic program. Any arrangements deviating from the major requirements as described in the course description section of this catalog must be communicated to the office of the dean in writing by the department chairman. The student should visit the office of the dean only when exceptional circumstances exist, upon referral by his or her advisor or to correct check sheet errors and change programs.

To change his or her major, the student must visit the office of the dean. A change of major is not accomplished by making a change on the registration form.

When the major is changed, the advisor is changed automatically by the college. All other matters pertaining to the assignment of advisors are administered by the departmental offices.

### b. Degree *in Absentia*

A student who wishes to earn a degree *in absentia* must complete 135 quarter hours including the specific requirements for the chosen program at Ohio University. A point-hour ratio of 2.0 or better must be maintained on all work attempted, and on all work in the major. All college area require-

ments must be completed, except the 200-level requirement, of which at least 45 hours must be completed above 200. A full year's work in an accredited school of dentistry, forestry, law, medical technology, medicine, physical therapy or veterinary medicine must be completed, and the student must be advanced to the second year of training (when the program is for more than one year) at the professional school without condition. For the medical technology and physical therapy degree *in absentia*, the student must successfully complete the professional program specified.

For the medical technology program, the student must receive the approval of the medical technology advisor; and for any other *in absentia* programs, a statement must be secured from the dean of the college before the student enters the professional school granting the degree *in absentia* privilege.

### c. Dual Major

A student wishing to earn a dual major in two related fields must consult with the chairman of each department involved and the dean of the college. Most departments stipulate that the student must complete the requirements for the full major in both areas even though he or she is pursuing a dual major. Courses taken in either or both of the fields, even though not required for the major, cannot be used to complete the general area requirements in foreign language, humanities, social sciences or natural sciences. The College of Arts and Sciences requires a minimum of 23 quarter hours (including nine hours at the 400-level) beyond the introductory course in each field. Specific requirements are left to the discretion of the departments concerned.

### d. Minor Requirement

There is no formal minor requirement for the college.

### e. Second Bachelor's Degree

The AB or BS degree is granted only once to a given student. The student may, however, complete additional majors within the degree program or may earn both the AB and BS degrees or degrees from separate degree-granting colleges. For the guidelines for earning a second bachelor's degree, see

the *Guidelines and General Information* section of this catalog. Note that the College of Arts and Sciences requires the completion of a minimum of 225 quarter hours for the second degree or 45 hours beyond the 180 hours required for the first degree.

#### f. Teacher Certification

Students earning either bachelor of arts or bachelor of science degrees in the College of Arts and Sciences may meet the special requirements for certification to teach in the secondary schools in Ohio by completing the following:

1. The regular program for the AB or BS degree with a teacher education major.
2.
 

a. Psy 275 or EdCI 275 . . . . .	5
b. EdSe* 250 . . . . .	4
c. EdPI** 360 or 361 . . . . .	2
d. EdSe 351 . . . . .	5
e. EdSe 480 . . . . .	3
f. The methods course(s) . . . . .	3-6
g. EdPI 463-464 . . . . .	12
h. EdPI 465 . . . . .	3
3. The teaching major—The teaching major program consists of the student's standard major plus courses required for certification. The student can obtain a description of this program from the advisor, the Office of the Dean of the College of Arts and Sciences or from the College of Education.

All students must meet the following general education requirements for certification in Ohio, as set forth by the State Department of Education:

Students must complete a total of 45 quarter hours of general education. These 45 quarter hours must be distributed so as to include at least two courses in each of the following fields:

1. Science and mathematics (one course in each)
2. Comparative arts and/or philosophy
3. Social science  
Psy 101 is required
4. English, and/or foreign language  
InCo 103 is required unless waived on the basis of a high school speech course.

If the major subject is the same as one of the above fields, then 10 quarter hours of the major may be counted towards the corresponding general education field as well as the major.

Careful selection of courses in meeting the College of Arts and Sciences area requirements will enable the student to fulfill all of the above general education requirements without exceeding the hours required for any requirements in the College of Arts and Sciences.

A prerequisite to certification is the satisfactory fulfillment of the Program of Selective Admission and Retention in Teacher Education.

For information about this program, see the College of Education section of this catalog.

#### g. Time and Resident Load Limitations

The student's requirements are defined by the catalog in effect when he or she begins study in a given program (when he or she first registers at Ohio University or changes to a new major program). Upon the expiration of five years past the date of entry, the requirements become defined by the current catalog. (See the *Guidelines and General Information* section of this catalog.)

The normal resident load requirement for a student enrolled in this college is as described in the *Guidelines and General Information* section of this catalog.

Students who have requirements which involve courses numbered below 300 should start meeting such requirements not later than the beginning of the sophomore year. This is strongly recommended in the case of foreign language. Registration by juniors or seniors in courses numbered below 300 is discouraged and in some cases prohibited.

#### h. Transfer and Transient Study

A transfer student is required to complete at least 12 quarter hours toward the major in courses in the major department at the 200 level or above at Ohio University, with a point-hour ratio of at least 2.0. These courses should be approved by the department chairman. A transfer student completing the dual or double major is required to complete at least nine quarter hours at the 200 level or above in each of the two departments at Ohio University, with a point-hour ratio of at least 2.0 in each department. These courses should be approved by the chairmen of the two departments. Transfer students must complete freshman-level English as required by the major department.

The transfer student or student earning credit by transient study should keep in mind that, in order to receive a degree, he or she must have a 2.0 or better average on all work done at Ohio University and on all work done in the major at Ohio University (see #10 above).

The transfer student should note the residence requirement which stipulates that a minimum of 45 final hours (one full year) must be completed with residence credit.

The senior student wishing to earn credit by transient study should keep in mind that he or she must complete the final 15 hours in residence at Ohio University if 90 or more hours were previously earned in residence. If fewer than 90 hours were earned in this

manner, the final residence requirement is 45 hours.

The student wishing to arrange to earn credit by transient study must secure approval from the dean prior to registering for such study. This permits review and clarification of requirements and procedures and prevents loss of credit.

#### i. Pass/Fail

No more than 20 hours may be taken on a pass/fail basis. Most departments do not allow credit for major coursework taken on the pass/fail basis. The specific limitations for each department are described in the *Courses of Instruction* section of this catalog.

The student is encouraged to read the *Guidelines and General Information* section of this catalog for general University academic information, including information about the grading system, probation, credit hour loads and residence requirements.

## SPECIAL CURRICULA

### Preparation for Advanced Training in Astronomy

The following program will lead to the BS degree with a physics major and will provide the background required for admission to graduate school in astronomy.

Freshman			
English . . . . .	Phys 251† . . .	5	Phys 252 . . . . . 5
Math 263A . . .	Math 263B†† .	5	Math 263C . . . . 5
Language* . . . 4	Language . . . .	4	Language . . . . . 4
Hu. or So. Sci.**	Hu. or So. Sci.		Hu. or So. Sci.
Sophomore			
Phys 253 . . . . . 5	Phys 272 . . . . . 2	Phys 273 . . . . . 2	
Math 340 . . . . . 5	Math 441 . . . . . 5	Math 440 . . . . . 5	
Math 450A . . . 5	Math 450B . . . 5	Math 410 . . . . . 5	
Hu. or So. Sci.	Hu. or So. Sci.	Phys 323* or 325* . . . . . 2	
		Hu. or Soc. Sci.	

\*323 and 325 are offered in alternate years.

Junior			
Phys 311 . . . . . 4	Phys 312 . . . . . 4	Phys 453 . . . . . 4	
Phys 451 . . . . . 4	Phys 452 . . . . . 4	Astr 302 . . . . . 3	
Astr 300 . . . . . 3	Astr 301 . . . . . 3	Astr 312 . . . . . 1	
Astr 310 . . . . . 1	Astr 311 . . . . . 1	Phys 373 . . . . . 2	
Phys 371 . . . . . 2	Phys 372 . . . . . 2	Phys 323* or 325* . . . . . 2	
Hu. or So. Sci.	Hu. or So. Sci.	Hu. or So. Sci.	

\*323 and 325 are offered in alternate years.

Senior			
Phys 427 . . . . . 4	Phys 428 . . . . . 4	Phys 429 . . . . . 2	
Phys 411 . . . . . 4	Phys 412 . . . . . 4	Astr 450 . . . . . 4	

Astr 350 . . . . . 4 Astr 450 . . . . . 4 Electives, etc.  
Electives, etc. Electives, etc.

For students in the Honors Tutorial Program, special combinations of some of the above courses are available.

\*See the foreign language requirement, candidates for the BS degree, p. 64.

\*\*See the humanities area requirement and the social sciences area requirement, p. 65.

†Physics courses complete the physics major requirements.

††Math and astronomy courses complete the natural sciences requirement.

### Preparation for Advanced Training in Botany (AB or BS Degree)

Students who intend to major in botany at the undergraduate level and continue their botanical training at the graduate level (MS or PhD) should plan their undergraduate programs to follow closely the sequence presented here. All students planning to follow this curriculum should consult the undergraduate chairman in the Department of Botany as soon as they elect this program so that they can be assigned to advisors. It is absolutely essential that students who plan to take advanced training in botany see an advisor before beginning their undergraduate programs, and especially before making a choice of math or chemistry sequence, so that they can be advised as to the specific program which best meets their needs, both now and in the future. No substitutions or deletions should be made in the program outlined below without first consulting with an advisor in the Department of Botany.

Freshman	
Bot 101 Principles of Biol . . . . .	5
Bot 102 Plant Biol . . . . .	5
Zool 203 Principles of Zool . . . . .	6
Chem 141 Intro . . . . .	5
Chem 142 Chem Energetics . . . . .	5
Chem 143 Quant. Analysis . . . . .	5
Math 163A & 163B Intro to Calc . . . . .	8
OR	
Math 263A & 263B Analyt Geom and Calc . . . . .	10
(Note: Students should be certain to see an advisor before making a choice of math sequence.)	
Arts and Sciences degree requirements (including language) and/or electives.	

Sophomore	
Bot 307 Biol of Algae and Mosses . . . . .	6
Bot 308 Vascular Morph . . . . .	6
Bot 309 Ohio Flora . . . . .	5
Bot 310 Biol of Fungi . . . . .	5
Chem 301, 302, 303, 304 Organic Chem . . . . .	9
(Note: For a stronger chemistry background, students should consider taking Chem 305, 306, 307, 308, 309 in place of Chem 301, 302, 303, 304.)	
English (100-level courses) . . . . .	10
Arts and Sciences degree requirements (including language) and/or electives.	

## Junior

Bot 424 Plant Physiol	6
Bot 431 Cytology	5
Zool 325 Genetics	5
Phys 201, 202, 203 Introd	12
Arts and Sciences degree requirements (including language) and/or electives.	

## Senior

Bot 405 Biol Discussions	2
Bot 425 Plant Ecology	5
Bot 475 Plant Speciation and Evolution	3
Arts and Sciences degree requirements (including language) and/or electives.	

## Preparation for Advanced Training in Mathematics

Students who envision eventually doing mathematics graduate work can ensure adequate preparation by building their programs around the basic mathematics offerings listed below. In addition, some computer science experience and coursework from the physical sciences is recommended. Interested students should consult an advisor in the Mathematics Department for assistance in planning their programs.

## Freshman

Math 263A, B, C or H294, H295, H296

## Sophomore

Math 340  
Math 360  
Math 211 and/or 214

## Junior-Senior

Math 460A, B, C  
Math 413A, B and/or Math 480A, B

The student also is encouraged to select some other 400-level mathematics electives as time and interest permit. Some suggestions include: 470; 450A, B; 440; 441.

## Preparation for Advanced Training in Physics

This is a demanding program for students interested in eventually getting advanced degrees in theoretical or experimental physics. However, there are included courses which would equip the graduate for career opportunities in industrial and government laboratories. Students should also consult the physics curricula and courses in the *Courses of Instruction* section of the catalog and should consult the chairman about this program in their freshman year.

## Freshman

English 5 Phys 251\* 5 Phys 252\* 5  
Math 263A\* 5 Math 263B\* 5 Math 263C\* 5

Language 4	Language 4	Language 4
Hu. or So. Sci.	Hu. or So. Sci.	Hu. or So. Sci.
Sophomore		

Phys 253*	5	Phys 272*	2	Phys 273*	2
Math 340*	5	Math 441*	5	Math 440*	5
Nat Sci* 4		Nat Sci* 4		Phys 323	2
Hu. or So. Sci.		Hu. or So. Sci.		(even yrs)	
				Phys 325	2
				(odd yrs)	
				Phys 303**	3
				Nat Sci**	

## Junior

Phys 311*	4	Phys 312*	4	Phys 313†	2
Phys 451*	4	Phys 452*	4	Phys 453	4
Phys 371*	2	Phys 372*	2	Phys 373*	2
Math 470†	5	Hu. or So. Sci.		Phys 323	2-3
Hu. or So. Sci.				(even yrs)	
				Phys 325	2-3
				(odd yrs)	
				Phys 420	2-3
				(odd yrs)	
				Math 410†	5
				Hu. or So. Sci.	

## Senior

Phys 427*	4	Phys 428*	4	Phys 429†	2
Phys 475**	1-3	Phys 475**	1-3	Phys 475**	1-3
Phys 411*	4	Phys 412*	4	Phys 323	3
Phys 621†	4	Phys 622†	4	(even yrs)	
Electives, etc.		Electives, etc.		Phys 420	3
				(odd yrs)	
				Phys 471	4
				Phys 493	1
				Electives, etc.	

\*Note: Phys 251, 252, 253 recommended, but Phys 201, 202, 203 possible. This alternative is to be followed by Phys 305.

†12 hours of natural science other than physics and mathematics are required.

\*Required for the BS degree in physics.

\*\*Recommended.

†Recommended for those physics majors wishing to pursue graduate studies in physics.

## Preparation in Applied Mathematics

This program offered by the Department of Mathematics leads to a BS degree in mathematics and allows an emphasis on applications of mathematics to some other disciplines. A student in this program is encouraged to elect a secondary area of concentration in one of the areas of engineering, natural science or social science. Many options are available. The particular program will vary with the student's interests and needs. An advisor will be assigned to assist each student in designing a suitable plan. The student should ask the chairman of the Mathematics Department for further information regarding this program. The mathematics coursework for two example study plans is given below.

*Example A.* For those whose secondary area of concentration is in economics, com-

puter science or industrial and systems engineering, a suggested plan includes:

	Freshman
Math 263A, B, C	
	Sophomore
CS 253	
Math 340	
Math 360	
	Junior
Math 450A, B, C	
Math 410	
	Senior
Math 460A, B	
Math 444	
Math 442	

*Example B.* For those whose secondary area of concentration is in mechanical, civil, chemical or electrical engineering, or in chemistry or physics, a suggested plan includes:

	Freshman
Math 263A, B, C	
Math 250B	
	Sophomore
Math 340	
Math 360	
Math 440	
	Junior
Math 410	
Math 470	
Math 441	
	Senior
Math 444	
Math 450A, B or Math 460A, B	

## Preparation in Applied Physics

This four-year program offered in the Department of Physics leads to a BS degree in physics and allows an emphasis in experimental techniques together with engineering or other applied sciences. Such a program offers a broad basic education in several areas fundamental to present technology and is aimed at preparing students for many physics career opportunities in industry or government laboratories.

The particular sequence of courses will vary with the student's interests. The required courses in natural science, physics and mathematics are the same as those for students preparing for Advanced Training in Physics. Students may then elect a sequence of courses in physics together with engineering, chemistry or biology which are more applied in nature. Some examples of courses which may be included are: EG 101 and 102

—Engineering Drawing, ChE 331—Principles of Engineering Materials, CE 423 —Continuum Mechanics, CE 340—Fluid Mechanics, ME 407—Fundamentals of Nuclear Engineering, ChE 433—Physical Metallurgy, Phys 475 — Advanced Lab, Phys 420 —Acoustics, Phys 471—Solid State Physics and Phys 470—Special Problems.

Interested students should consult the chairman of the Department of Physics for assistance in planning their programs.

## Preparation for Botanically Related Disciplines

Although no specific curricula (other than preparation for advanced training in botany, p. 69; environmental biology-botany emphasis, p. 72; and forestry, p. 73) are offered in these disciplines, the Department of Botany can recommend courses or curricula to students interested in pursuing careers in agronomy, marine biology, medical mycology, horticulture, landscape architecture or plant breeding. Interested students should contact the undergraduate chairman in the Department of Botany for details.

Students interested in conservation, natural resources, wildlife management, environmental quality control or similar programs should read the description under Preparation for Environmental Biology (Botany Emphasis).

## Preparation for Dentistry (Major Code #2501)

No specific area for the major is required by the dental college or by Ohio University in undergraduate preparation for dentistry. The student must present preparation in various basic sciences, and many students do complete a major in one science or a dual major in two sciences.

Currently, most dental schools are selecting students with the bachelor's degree or a limited number who have completed three years and have met the degree in *absentia* privilege.

All dental school applicants are required to take the Dental Aptitude Test, offered during the academic year previous to the time the student plans to enroll in dentistry.

Predentistry students wishing to major in chemistry should follow the program for the premedical chemistry major on p. 76.

The following sequence of courses is

required for predentistry students majoring in zoology. Students are encouraged to make additional selections from the recommended electives listed after the junior-senior program.

#### Freshman

Chem 141 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Eng (including 181)	10
Math 163A-B Introduction to Calculus*	8

OR

Math 263A-B Analytical Geometry and Calculus	10
Zool 101 and 203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives. (English and comparative arts are recommended.)	

\*Of the choices, this is recommended.

#### Sophomore

Chem 301-302-303-304 Organic (short)*	9
OR	
Chem 305-306-307-308-309 Organic (long)	13
Zool 303 Comparative Vertebrate Anatomy	6
Zool 325 General Genetics	5

\*Of the choices, this is recommended, to be followed by Zool 463 in the senior year.

#### Junior-Senior

Phys 201-202-203 Introduction	12
Zool 448 Cell Chemistry	4
OR	
Zool 460 Animal Physiology	5
Zoology electives	4
Zool 463 Cell Chemistry	4

OR

Chem 491 Intro to Biochemistry	3
Arts and Sciences College degree requirements and/or electives.	

Recommended electives:

Micr 411 General Microbiology	6
Zool 404 Comp Vertebrate Anat, Mammalian	6
Zool 306 Vertebrate Embryology	6

Students who elect the degree *in absentia* option must complete a minimum of 36 hours in zoology/microbiology. Students who complete the four-year program must complete a minimum of 45 hours in zoology/microbiology.

\*Suggested.

## Preparation for Environmental Biology (Botany Emphasis)

The Department of Botany offers a pre-professional program designed to give the student a broad base for developing a career in biology with an emphasis on the environmental aspects of the science. Although students who elect this program may find it to be satisfactory for their own goals, some additional training in the specialized fields should be anticipated. Such postgraduate work may be obtained at schools of conser-

vation and wildlife management, schools of forestry, graduate colleges in ecology or at similar institutions. Students whose main interests lie toward careers in conservation, natural resources, forestry, environmental quality control and ecology should find this program of value. Because of the high degree of professionalism required in these fields, the need for training beyond this program cannot be overemphasized. Students planning to follow this curriculum should consult the undergraduate chairman in the Department of Botany as soon as they elect this program so that they can be assigned to an advisor. No substitutions should be made in this program without first consulting with such an advisor.

In addition to the formal program outlined below, the following general requirements should be included in the environmental biology curriculum (students should be certain to see an advisor for appropriate courses to be selected):

Geography	12 hours
Geology	8 hours
Economics (including 313)	12 hours
Computer Science and Statistics	10 hours

#### Freshman

Bot 101 Principles of Biology	5
Bot 102 Plant Biology	5
Zool 203 Principles of Zoology	6
Chem 141 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Math 163A and 163B Intro to Calc	8

OR

Math 263A\*\* and 263B Analyt Geom and Calc. . . 10  
(Note: Students should be certain to see an advisor before making a choice of math sequence.)  
Arts and Science degree requirements (including language) and/or electives.

#### Sophomore

Bot 247 Vegetation of North America	4
Bot 309 Ohio Flora	5
Phys 201, 202 Introd	8
Chem 301, 302 Organic	6
English (100-level courses)	10
Arts and Sciences degree requirements (including language) and/or electives.	

#### Junior-Senior

Bot 310 Biol of Fungi	5
Bot 404 Undergraduate Research	2
OR	
Bot 405 Discussions About Biology	2
Bot 420 Fresh-Water Algae	5
Bot 424 Plant Physiol	6
Bot 425 Plant Ecology	5
Bot 426 Advanced Ecology	5
Bot 475 Plant Speciation and Evolution	3
Zool 325 Genetics	5
Zool 475, 476 Animal Ecology	5
Arts and Sciences degree requirements (including language) and/or electives.	

## Preparation for Environmental Biology (Zoology Emphasis) (Major Code #2509)

The program in environmental biology offered through the Department of Zoology and Microbiology provides a background for students preparing for graduate school or careers in animal ecology, wildlife biology, conservation, environmental science, animal husbandry, natural resources and others. Selection of courses to fit individual curriculum needs and career goals can be made in the junior-senior program in consultation with the major advisor. It is recommended that the course schedule for the first two years be followed closely.

### Freshman

Zool 101 Principles of Biology	5
Zool 203 Principles of Zoology	6
Bot 102 Plant Biology	5
Chem 141 Intro.	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Eng 181 Contemporary Writing Skills	5
Arts and Sciences College degree requirements and/or electives. See social science course suggestions below.	

### Sophomore

Chem 301-302 Organic (short)	6
Math 163A-163B Intro to Calculus	8
OR	
Math 263A-263B Analytic Geom. and Calc.	10
Phys 201-202 Intro	8
Zool 325 General Genetics	5
Arts and Sciences College degree requirements and/or electives. See social science course suggestions below.	

### Junior-Senior

Zool 460 Animal Physiology	5
Zool 475-476 Animal Ecology with Lab	5
Zool 477 Population Biology	4
Zool 479 Evolution	4
ISE 304 Statistics	3

Plus at least 16 hours from among the following courses:

101-102, 313; Geog 140-141-142, 201, 260, 327, 365, 422.	
Zool 371 Ornithology	4
Zool 430 Invertebrate Zoology	6
Zool 435 General Entomology	6
Zool 439 Field Entomology	5
Zool 473 Ethology	6
Zool 474 Mammalogy	6
Micr 411 General	6
Arts and Sciences college requirements and/or electives. Suggested social science courses include: Econ 101-102, 313; Geog 140-141-142, 201, 260, 327, 365, 422.	

Other electives suggested for consideration by the student in consultation with the advisor include: Zool 433, 442; Bot 308, 309, 420, 424, 425, 426; CE 452; CS 254; Geol 211, 448; IndT 336; ENT 324, 325, 326.

## Preparation for Forestry

Although no specific forestry program is offered at Ohio University, the Department of Botany does have a cooperative arrangement with the School of Forestry at Duke University whereby a student can obtain some preprofessional training at Ohio University and then transfer to Duke University for formal training in professional forestry. The curriculum offered at Ohio University will prepare a student for admission to the School of Forestry of Duke University at the completion of the junior year, provided that the student has completed a minimum of 45 quarter hours of botany and all other requirements for earning a degree *in absentia* from Ohio University. This will permit the student to receive the bachelor of science degree *in absentia* from Ohio University upon the successful completion of one academic year at Duke, and the master's degree from Duke University upon completion of an additional one and one-half years of academic work in the program. However, prospective students should be aware that the number of applicants to Duke University's School of Forestry greatly exceeds the number of openings available, and completion of the three-year program at Ohio University does not guarantee the acceptance of the student by Duke University. Students interested in further details of this cooperative program in forestry should contact the undergraduate chairman in the Department of Botany at Ohio University for an outline of the suggested curriculum and assignment to an advisor.

Students who may wish to enroll at Ohio University for preprofessional training in plant science before transferring to schools of forestry other than Duke University should contact the undergraduate chairman in the Department of Botany for a suggested preforestry curriculum and assignment to an advisor.

The following sequence of courses is suggested for the freshman year of a preforestry program which would satisfy the requirements of many schools of forestry, and is the sequence to be followed by all students enrolled in the cooperative program with Duke University.

### Freshman

Bot 101 Principles of Biol	5
Bot 102 Plant Biol	5
Chem 141 Intro	5
Chem 142 Chem Energetics	5

Chem 143 Quant Analysis	5
Econ 101	4
Math 163A and 163B Intro to Calc	8
OR	
Math 263A and 263B Analyt Geom and Calc	10
Zool 203 Principles of Zool	6
(Note: Students should be certain to see an advisor before making a choice of math sequence.)	
Arts and Sciences degree requirements (including language) and/or electives.	

### Preparation for Government Foreign Service

Students desiring to prepare for the foreign service officer examinations, which are given yearly, are advised to acquire as broad an education as possible. Facility in written and spoken English, competency in a foreign language and a good background in economics, history, government, business or public administration are essential. More detailed information about foreign service officer examinations, including sample questions from previous examinations, may be obtained from the Government Department.

### Preparation for Law

A student in the College of Arts and Sciences who plans to enter law school normally completes the specific requirements for the bachelor of arts degree. No special curriculum is prescribed. The pre-law student may complete a major in the area of his or her principal interest. The student is advised to select courses from as many of the following as possible: English composition and literature and American literature; history, with a preference for English and American; government; economics; sociology; a laboratory science; mathematics; philosophy; ethics; logic; accounting; psychology, and a foreign language. Courses in speech and training in expression, as well as activities that develop the capacity for independent thought and action, are recommended.

The Ohio Supreme Court has ruled that a student entering law school must be able to show possession of an undergraduate degree from an approved college if he or she wishes to take the Ohio Bar Examination. Law schools in the state of Ohio require the degree of all entering students regardless of the state in which they plan to take the bar examination.

The degree *in absentia* privilege is available to students who do not plan to seek ad-

mission to an Ohio law school. Students who have completed 135 quarter hours at Ohio University with a point-hour ratio of 2.0 or above, on all hours attempted, and have satisfied the requirements for the AB or BS degree may obtain the degree after completing a full year's work of the quality prescribed for a bachelor's degree at Ohio University in an accredited school of law, including advancement, without condition, to the second year of law school. Prior to entering the school of law, the student must secure a statement in writing from the dean giving the *in absentia* privilege.

### Preparation in Linguistics

The undergraduate student may prepare for graduate work in linguistics in any of several ways, one of which is application for admission into the Bachelor of General Studies Program (see entry in the *Special Programs* section of this catalog). If accepted, he or she may work toward the BGS degree following a program planned to give the strongest preparation for graduate study in linguistics that the resources of the University allow. Or, the student may work within one of the departments permitting programs that are linguistically oriented. See, for example, the programs of the English, modern language and hearing and speech sciences departments. Depending upon the kind of linguistics the student wishes to study, he or she may want to consider an undergraduate major in mathematics, psychology or philosophy. Students interested in anthropological linguistics may want to consider the various course offerings in anthropology and those associated with the Center for International Studies programs: courses in African languages and particular aspects of African culture, or courses in Southeast Asian languages and cultures. (See the entry, *Center for International Studies*, in *Special Programs* section of this catalog.)

Inquiries concerning the problem of planning undergraduate programs with emphasis upon linguistics may be directed to the chairman of the Department of Linguistics, College of Arts and Sciences.

### Preparation for Medical Technology (Major Code #2123)

This program in medical technology pre-



pares students for work in hospital laboratories, public health bureaus and other laboratories concerned with medical diagnosis and investigation. It leads to a bachelor of science degree in zoology and certification by the American Society of Clinical Pathologists.

The Ohio University-hospital school of medical technology affiliation for training of medical technologists fulfills the requirements established by A.M.A. and A.S.C.P. and affords the student an opportunity to earn the bachelor's degree. After completing (1) a minimum of 135 quarter hours with at least a 2.0 point-hour ratio in the major and in all hours attempted and (2) all area requirements for the baccalaureate the student is eligible to apply for admission to one of several affiliated hospital schools for internship. Upon satisfactory completion of the 12-month internship, the student will receive the bachelor of science degree from Ohio University.

Approval may occasionally be granted for completion of the hospital internship at hospitals other than those affiliated with Ohio University if such hospitals have A.S.C.P.- and A.M.A.-approved programs in medical technology and if, for reasons of location or other factors, this would better meet the needs of the student. A student seeking such approval is required to present a copy of the hospital's program of study to the Department of Zoology and Microbiology for evaluation. If this substitute program is approved, the student becomes eligible for the degree *in absentia* privilege.

The student is urged to consult his or her advisor frequently during the preinternship period. Early in the fall quarter preceding internship, specific information about applying to an affiliated school of medical technology should be obtained from the medical technology advisor.

A student who transfers from another program or institution (including branch campuses of Ohio University) cannot normally expect to complete the preinternship requirements in three years unless the need to make up courses is minimal.

Affiliated hospitals vary with respect to fees assessed. A student requiring financial assistance may apply for a Kellogg Foundation or other loan through the Student Financial Aids Office.

#### Freshman

Chem 141 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Eng 181 Contemporary Writing Skills	5
Math 113 Algebra	5

#### OR

Math 163A Introduction to Calculus**	4
Zool 101 Principles of Biology	5
Zool 203 Principles of Zoology	6
Arts and Sciences College degree requirements and/or electives.	

\*\*Of the choices, this is recommended.

#### Sophomore

Chem 301-302 Organic (short)	6
Chem 325 Instr. Methods of Analysis	5
Zool 300 Elements of Anatomy and Histology	6
Zool 325 General Genetics	5
Zool 345 Human Physiology	4
Arts and Sciences College degree requirements and/or electives.	

#### Junior

Micr 411 General Microbiology	6
Micr 415 Immunology	7
Zool 463 Cell Chemistry	4
Arts and Sciences College degree requirements and/or electives.	

#### PLUS AT LEAST 15 HOURS FROM AMONG THE FOLLOWING COURSES:

Micr 412 Microbiological Techniques	4
Micr 413 Pathogenic Bacteriology	6
Zool 305 Histological Technique	3
Zool 326 Laboratory Genetics	4
Zool 346 Human Physiology Laboratory	2
Zool 428 Human Genetics	3
Zool 441 Parasitology	6
Zool 464 Physiological Chemistry Laboratory	4
Mgt 420 Administration of Personnel	4
CS 150 Computer Science, Survey	3
Phys 201-202 Introduction to Physics	4-4
IndT 336 Bioelectronics	3
Math 263A Analytical Geometry and Calculus	5
Chem 351 Physical Chemistry	4
Psy 121 Elem. Statistics for the Behavioral Sciences	5

Chem 479 Radiochemistry	4
Chem 303 Organic Chemistry Lab	1
Chem 304 Organic Chemistry Lab	2

A total of 48 hours of medical technology coursework is taken at an affiliated hospital. A typical program includes:

Hematology	8 hours
Bacteriology and Serology	13 hours
Parasitology	2 hours
Clinical Chemistry	17 hours
Immunohematology	4 hours
Urinalysis	3 hours
Radioisotopes	1 hour

### Preparation for Medicine

Most medical colleges require the bachelor's degree for admission; all others require a minimum of three academic years.

No specific area for the major is required by the medical college or by Ohio

University in undergraduate preparation for medicine. The student must present preparation in various basic sciences, and many students do complete a major in one science or a dual major in two sciences.

For most medical schools, the requirements for admission include general chemistry; qualitative analysis; organic chemistry, including laboratory; physics; zoology, comparative vertebrate anatomy; embryology, and English. Courses in economics, fine arts, government, history, literature, composition, philosophy and sociology are advised. A year's course in mathematics is required by some and urged by most schools. A student who plans to complete only three years at Ohio University before entering medical college is urged to meet requirements of the College of Arts and Sciences so as to be eligible for the degree *in absentia* privilege.

All medical college applicants are required to take the Medical College Admissions Test (MCAT) in May or October of the calendar year previous to the time they expect to enroll in medical college.

If the student has a particular medical school in which he or she wishes to enroll the program should be planned to meet the specific requirements of that school.

The recommended program for premedical students majoring in chemistry is listed below. Possible options for specific items in this program may be considered in consultation with an advisor in the Department of Chemistry.

## Chemistry Major (AB Degree)

Freshman	
Chem 141-142-143	15
Math 263A-B-C	15
Zool 101-203 Prin Biol and Zool	11
Sophomore	
Chem 305-306-307	9
OR	
Chem 301-302**	6
Chem 308-309	4
OR	
Chem 303-304**	3
Phys 251-252-253	15
Junior	
Chem 453-454-455	9
OR	
Chem 351**	4
Zool 303*	6
Zool 325*	5
Chem 325** (or Chem 484* and 485*)	5 (or 10)

## Senior

Chem 476†	4
Zool 406*	6
Chem 490*, 491* and 492*	9

\*Desirable but not required.

†Students anticipating the degree *in absentia* privilege should schedule these requirements in the junior year.

\*\*Students who select these courses are reminded that a full year's work in one of these fields is required.

Premedical students majoring in zoology will be required to complete the following premedical program. Additional selections from the recommended electives listed after the junior-senior program are encouraged.

## Zoology Major (Major Code #2502)

### Freshman

Chem 141 Intro	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Eng (including 181)	10
Math 163A-B Intro to Calculus*	8

OR

Math 263A-B Anal Geom and Calc	10
Zool 101-203 Prin Biol and Zool	11
Arts and Sciences College degree requirements and/or electives. Courses in English and comparative arts are recommended.	

\*Of the choices, this is recommended.

### Sophomore

Chem 301-302, 303-304 Organic (short)*	9
OR	
Chem 305-306-307, 308-309 Organic (long)	13
Zool 303 Comp Vert Anatomy	6
Zool 325 General Genetics	5
Arts and Sciences College degree requirements and/or electives.	

\*Of the choices, this is recommended.

### Junior-Senior

Chem 325 Instrumental Analysis	5
Phys 201-202-203 Introduction	12
Zool 448 Cell Chemistry	4-5

OR

Zool 460 Animal Physiology	5
Zool 463 Cell Chemistry	4

OR

Chem 491 Intro to Biochemistry	3
Arts and Sciences College degree requirements and/or electives.	

Recommended electives:

Gr 127 Greek Words in English	3
IndT 336 Bioelectronics	3
Micr 411 General Microbiology	6
Zool 404 Comp Vertebrate Anan	6
Zool 406 Vertebrate Embryology	6
Courses in accounting and economics	

Students who elect the degree *in absentia* option must complete a minimum of 36 hours in zoology. Students who complete the four-year program must complete a minimum of 45 hours in zoology.

## Preparation for Microbiology (Major Code #0411)

Students who intend to specialize in microbiology should consult with the chairman of the Department of Zoology and Microbiology for assignment to an advisor. The requirements for this program are listed below.

The four-year program leads to the bachelor of science degree and prepares graduates for careers in municipal, state and federal public health laboratories, in medical laboratories and in the food and drug industries or research laboratories and environmental protection. The bachelor's degree in this field qualifies the student for further training in a school of public health or a university department of microbiology leading to the master's or doctor's degree.

### Freshman

Zool 101 Princ. of Biology	5
Bot 102 Plant Biology	5
Chem 141 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Math 163A Intro to Calculus	4

### OR

Math 263A Anal Geom and Calc	5
Arts and Sciences College degree requirements and/or electives.	

### Sophomore

Chem 301-302 Organic (short)	6
Zool 325 General Genetics	5
Arts and Sciences College degree requirements and/or electives.	

### Junior-Senior

Micr 411 General	6
Micr 412 Microbiological Techniques	4
Micr 413 Pathogenic Bacteriology	6
Micr 414 Virology	4
Micr 415 Immunology	6
Micr 419 Bacterial Physiology	6
Phys 201-202 Introduction	8
Zool 463 Cell Chemistry	4
Plus at least one of the following:	
Micr 211-212 Environmental Microbiology	5
Micr 418 Epidemiology	4
Zool 433 Protozoology	6
Zool 441 Parasitology	6
Bot 310 Biology of Fungi	4
Bot 420 Fresh-Water Algae	5
Arts and Sciences College degree requirements and/or electives.	

## Preparation for Optometry

The requirements for admission to schools of optometry are not uniform. A minimum of 90 hours exclusive of military science and physical education is required. The following suggested curriculum will

meet the admission requirements for a collegiate program and consequently of most independent schools of optometry.

### Freshman

Chem 141 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
English 181 Contemp. Writing Skills	5
Math 263A Analytic Geometry & Calculus	5
Math 263B Analytic Geometry & Calculus*	5
Zool 101 Principles of Biology	5
Zool 203 Principles of Zoology	6
Arts and Sciences College degree requirements and/or electives.	

\*Suggested, not required.

### Sophomore

Chem 301-302 Organic (short)	6
Chem 303-304 Organic Lab	3
Psy 101 General	5
Zool 303 Comparative Vertebrate Anatomy	6
Zool 325 General Genetics	5
Arts and Sciences College degree requirements and/or electives.	

### Junior

Phys 201-202-203 Introduction	12
Zool 345 Human Physiology	4

### OR

Zool 460 Animal Physiology	5
Arts and Sciences College degree requirements and/or electives.	

PLUS AT LEAST 10 HOURS FROM AMONG THE FOLLOWING COURSES:

Micr 411 General	6
Zool 404 Comp. Vert. Anat. (Mammalian)	6
Zool 406 Vertebrate Embryology	6
Zool 408 Histology	6
Zool 448 Cell Physiology	4
Zool 463 Cell Chemistry	4

The student should consult the departmental advisor and the dean of the college regarding the program for the fourth year.

Further information relative to requirements and the profession of optometry may be obtained by writing to the American Optometric Association, Department of Public Information, 700 Chippewa Street, St. Louis, Missouri 63319.

## Preparation for Pharmacy (Major Code #2506)

Most schools of pharmacy require 90 quarter hours of academic credit, exclusive of physical education and military science, for admission. The following general program will meet the requirements of most schools. There is no *in absentia* arrangement for pharmacy.

### Freshman

Chem 141 Introduction	5
Chem 142 Chemical Energetics	5

Chem 143 Quantitative Analysis	5
Math 163A-B Intro to Calculus	8
OR	
Math 263A-B Anal Geometry and Calculus	5-5
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

## Sophomore

Chem 305-306-307 Organic (long)	9
Chem 308-309 Organic Lab	4
Econ 101 Principles	4
Phys 201-202-203 Introduction	12
QM 200 Intro. Bus. Data Proc	4
QM 201 Statistics	4
Zool 300 Elements of Anatomy	6
Arts and Sciences College degree requirements and/or electives.	

The student may complete this program plus the additional requirements for the AB or BS degree with a major in zoology or chemistry.

Since some pharmacy schools require additional courses not listed here, students wishing to go to a specific school should write to the school of their choice for additional requirements as soon as possible.

### Preparation for Physical Therapy (Major Code #2507)

The following programs extending over a period of three or four years at Ohio University are recommended to students who wish to enter physical therapy.

**Plan A:** After completing (1) a minimum of 135 quarter hours including the entire Plan A curriculum with at least a 2.0 point hour ratio in the major and in all hours attempted and (2) all area requirements for the baccalaureate, the student may apply for admission to an accredited school of physical therapy. Upon satisfactory completion of 12 months of professional training in physical therapy the student will receive the bachelor of science degree *in absentia* from Ohio University with a major in zoology. At present Ohio University is affiliated with The Mayo Clinic and Northwestern University in this degree *in absentia* program.

**Plan B:** The student may elect to transfer to an accredited school of physical therapy and not complete the degree requirements at Ohio University. If this option is elected it is suggested that the transfer be made no later than the end of the sophomore year, and the student's academic pro-

gram while at Ohio University should essentially follow that of Plan A. Care should be taken to fulfill all special admission requirements established by the school to which he or she is transferring.

**Plans C and D:** A student may elect to pursue a career in physical therapy after completing a four-year bachelor's degree program at Ohio University majoring in either zoology (Plan C) or psychology (Plan D). For such students it is recommended that they follow one of the baccalaureate programs given below and apply for entrance to a certificate program in an accredited school of physical therapy to commence after graduation from Ohio University.

**Plans A or B:** Three year degree *in absentia* and transfer program. The following courses are required:

## Freshman

Chem 121-122-123 Introduction	12
Eng 181 Contemporary Writing Skills	5
Math 113 Algebra	5
OR	
Math 163A Intro to Calculus	4
Psy 101 General	5
Zool 101-203 Prin Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

## Sophomore

HPER 202C Personal and Community Health	3
Psy 173 Child and Adolescent	5
Soc 302 Principles	5
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
Zool 346 Human Physiology Lab	2
Zool 352 Kinesiology	4
Arts and Sciences College degree requirements and/or electives.	

## Junior

HPER 329C Athletic Training	4
Phys 201-202 Introduction	8
Zool 445 Physiology of Exercise	4
Zool 446 Physiology of Exercise Lab	2
Zool Elective	3
Arts and Sciences College degree requirements and/or electives.	
Students who elect the degree <i>in absentia</i> option (Plan A) must complete a minimum of 36 hours in zoology/microbiology.	

## Senior

To be completed at an accredited school of physical therapy. The following courses are suggested to be used to supplement the major or serve as electives:	
GR 127 Greek Words in English	3
HSS 108 Introduction to Speech Disorders	3
OR	
HSS 336 Speech and Hearing Disorders in Public Schools	3-4

HSS 424 Neuropathologies of Speech and Language	3-4
Psy 275 Educational	5
Psy 332 Abnormal	5
Psy 131 Psychology of Adjustment	4
Zool 303 Comparative Vertebrate Anatomy	6
Zool 325 General Genetics	5
Zool 460 Animal Physiology	5
Zool 479 Evolution	4

**Plan C: Four-year BS in zoology program.** The following courses are required:

<b>Freshman</b>	
Chem 121-122-123 Introduction	12
Eng 181 Contemporary Writing Skills	5
Math 113 Algebra	5
OR	
Math 163A Intro to Calculus	4
Psy 101 General	5
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

<b>Sophomore</b>	
HPER 202C Personal and Community Health	4
Soc 302 Principles	5
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
Zool 346 Human Physiology Lab	2
Zool 352 Kinesiology	4
Arts and Sciences College degree requirements and/or electives.	

<b>Junior</b>	
HPER 329C Athletic Training	4
Phys 201-202 Introduction	8
Psy 173 Child	5
Zool 303 Comparative Vertebrate Anatomy	6
Zool 325 General Genetics	5
Arts and Sciences College degree requirements and/or electives.	

<b>Senior</b>	
Zool 445 Physiology of Exercise	4
Zool 446 Physiology of Exercise Lab	2
Students who complete the four-year program must complete a minimum of 45 hours in zoology/microbiology.	
Arts and Sciences College degree requirements and/or electives.	

The following are suggested courses to be used to supplement the major or serve as electives:

GR 127 Greek Words in English	3
HSS 108 Introduction to Speech Disorders	3
OR	
HSS 336 Speech and Hearing Disorders in Public Schools	3-4
HSS 424 Neuropathologies of Speech and Language	3-4
Psy 131 Psychology of Adjustment	4
Psy 275 Educational	5
Psy 332 Abnormal	5
Zool 404 Comparative Vertebrate Anatomy	6
Zool 460 Animal Physiology	5
Zool 479 Evolution	4

**Plan D: Four-year AB in psychology program.** The following courses are required:

<b>Freshman</b>	
Chem 121-122-123 Introduction	12
Math 113 Algebra	5
OR	
Math 163A Intro to Calculus	4
Psy 101 General	5
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

<b>Sophomore</b>	
Psy 121 Elem Stats for Behavioral Science	5
Psy 226 Experimental Psychology	5
Psy 173 Child	5
Soc 302 Principles	5
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
Zool 346 Human Physiology Lab	2
Zool 352 Kinesiology	4
Arts and Sciences College degree requirements and/or electives.	

<b>Junior</b>	
HPER 329C Athletic Training	4
Phys 201-202 Introduction	8
Psy 131 Psychology of Adjustment	4
Psy 241 Behavioral Measurement	5
Psy 303 Learning	5
OR	
Psy 304 Human Learning	5
Arts and Sciences College degree requirements and/or electives.	

<b>Senior</b>	
HPER 202C Personal and Community Health	4
Psy 310 Motivations	5
OR	
Psy 336 Social	5
OR	
Psy 351 Clinical and Counseling	5
Psy 312 Physiological Psychology	5
Psy 332 Abnormal	5
OR	
Psy 333 Psychology of Personality I	5
Psy 376 Psychology of Exceptional Child	5
Zool 445 Physiology of Exercise	4
Zool 446 Physiology of Exercise Lab	2
Arts and Sciences College degree requirements and/or electives.	

The following are suggested electives:

GR 127 Greek Words in English	3
HSS 108 Introduction to Speech Disorder	3
OR	
HSS 336 Speech and Hearing Disorders in Public Schools	3-4
HSS 424 Neuropathologies of Speech and Language	3-4
Zool 404 Comparative Vertebrate Anatomy	6
Zool 460 Animal Physiology	5
Zool 479 Evolution	4

## Preparation for Theology and Religion

It is recommended that a student planning to enter a theological seminary or to do graduate study in religion take a broad program of undergraduate courses including

the following (with minimal quarter hours of credit suggested in each area): philosophy (12); Bible and history of religions (15); English composition and literature, and world literature (21); history (15); social sciences (21); foreign languages (18, preferably in Greek, Hebrew, Latin, French or German); natural sciences (9); public speaking (3). The course program should be arranged to meet the requirements of the bachelor of arts degree. It is advisable to major in philosophy, English or one of the social sciences. The student should also check the entrance requirements of the theological seminary or graduate school of his or her choice and plan his or her course accordingly.

### Preparation for Veterinary Medicine (Major Code #2508)

Schools of veterinary medicine require a minimum of 90 quarter hours of academic credit, exclusive of physical education and military science, for admission. Many schools now require a bachelor's degree, with a limited number of students being accepted following the completion of the junior year with the degree *in absentia* requirements having been met.

Some schools of veterinary medicine require applicants to take the Veterinary Aptitude Test. The student should check with the veterinary schools of his or her choice as to this requirement.

Pre-veterinary medicine students majoring in zoology will be required to complete the following program. Additional selections from the recommended electives listed after the junior-senior program are encouraged.

Freshman	
Chem 141 Intro	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Eng 181 Contemporary Writing Skills	5
Math 163A-B Intro. to Calculus*	8
OR	
Math 263A-B Analytic Geometry and Calculus	10
Zool 101 Principles of Biology	5
Zool 203 Principles of Zoology	6
Arts and Sciences College degree requirements and/or electives.	

\*Of the choices, this is recommended.

Sophomore	
Chem 301-302 Organic (short)	6
Chem 303-304 Organic Lab	3
Phys 201-202-203 Intro	12

Zool 303 Comparative Vertebrate Anatomy	6
Zool 325 General Genetics	5
Arts and Sciences College degree requirements and/or electives.	

Junior-Senior	
Mier 411 General Microbiology	6
Zool 460 Animal Physiology	5
Zool 461 Animal Physiology Lab	4
Arts and Sciences College degree requirements and/or electives.	

Recommended electives:	
Zool 404 Comparative Vertebrate Anatomy—Mammalian	6
Zool 406 Vertebrate Embryology	6
Zool 463 Cell Chemistry	4

OR	
Chem 491 Intro. to Biochemistry	3
Students who elect the degree <i>in absentia</i> option must complete a minimum of 36 hours in zoology/microbiology. Students who complete the four-year program must complete a minimum of 45 hours in zoology.	

### Preparation for Water Resources

This curriculum is recommended for those students in the College of Arts and Sciences who wish to specialize in the investigation of surface-water and groundwater supplies. The student should major in geology, with additional courses in mathematics, chemistry, physics and civil engineering.

Students should enter the program as freshmen in order to complete the curriculum in four years. The following sequence of courses is recommended as a minimum:

Freshman	
Geol 101 Earth Materials and Structure	4
Geol 102 Surface Processes and Environmental Geology	4
Geol 330 Principles of Geomorphology	5
Chem 141, 142, 143 Fundamentals of Chemistry	15
Math 263A, B Analytical Geometry and Calculus	10
Requirements and/or electives.	

Sophomore	
Geol 310 Rocks and Minerals	5
Geol 438 Glacial Geology	5
Math 263C Analytical Geometry and Calculus	5
Phys 251-252-253 General Physics	15
Requirements and/or electives.	

Junior	
CE 220, 321	8
Math 340 Differential Equations	5
Geol 350 Principles of Sedimentology	4
Geol 353 Principles of Stratigraphy	4
Geol 360 Structural Geology	5
Geol 386 Geologic Field Methods	3
Geol 483 Field Hydrology	4
Requirements and/or electives.	

Senior	
CE 340 Fluid Mechanics	5
CE 343 Hydrology	3
Geol 480-481 Appl Ground Water Hydrology I and II	8

Geol 476 Subsurface Methods	4
Geol 485 Geophysics	4
Additional courses in CE 415, 450, 451, 452 and economics are recommended.	

## Two-Year Program in Mental Health Technology

The College of Arts and Sciences through the Department of Social Work offers the associate in applied science degree in mental health technology. Students requesting admission to the program must apply through the Department of Social Work and be accepted by an evaluation committee. A minimum of 90 hours is required (with a 2.0 average at graduation), to be completed in no fewer than six (6) academic quarters.

### Two-Year Mental Health Technology Curriculum

#### Freshman

Fall	
Zool 103 Human Biology	4
Psy 101 General Psychology	5

MHT 101 Intro. to Mental Health	3
Elective	12
	3

#### Winter

MHT 112 The Helping Relationship	3
Soc 101 Intro. to Sociology	5
Psy 131 Psychology of Adjustment	4

	12
Elective	3

#### Spring

MHT 122 Intro. to Social Casework	3
Psy 332 Abnormal Psychology	5
Psy 173 Child and Adolescent Psychology	5

	13
Elective	2-3

#### Sophomore

#### Fall

MHT 221 Practicum in Mental Health I	10
MHT 201 Activity Therapies	3
Educ 410 Human Relations	3

	16
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#### Winter

MHT 222 Practicum in Mental Health II	10
Educ 440 Foundations in Group Dynamics	4
SW 290 Social Security System	4

	18
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#### Spring

MHT 223 Practicum in Mental Health III	10
MHT 231 Seminar in Mental Health	3
SW 391 American Social Welfare Institutions	4

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## The College of Business Administration

John M. Peterson, *Dean*

Herschel R. McNabb, *Assistant Dean*

Consistent with its character and history as a pioneer educational institution, Ohio University inaugurated courses in business administration in 1893, at a time when few colleges and universities offered instruction in this area. As the concepts of collegiate training for business broadened, the offerings were steadily expanded. The College of Business Administration was established in 1936 and became an accredited member of the American Assembly of Collegiate Schools of Business in 1950. Today the college offers a program which leads to the bachelor of business administration degree with majors in accounting, business economics, finance, general business, management, marketing and quantitative methods. It also provides master's degree programs in accounting, business, economics and economic education.

The primary objective of the College of Business Administration is to educate students seeking professional careers in business, as well as in government and nonprofit organizations. In our complex and rapidly changing modern society, an administrator is necessarily a generalist who must make

decisions within organizations regarding both technical and social matters in the face of uncertainties and conflicting pressures. Thus, the degree core curriculum provides for an understanding of legal procedures, economics and behavioral science plus a working knowledge of skills of communication, accounting and quantitative methods. The core curriculum also includes introductory courses in the business functional fields of finance, production and marketing. In addition, a candidate for the degree must take a concentration of courses in a major field which prepares him or her for the initial entry into a career.

The College of Business Administration also has a significant responsibility in helping to educate citizen leaders who will participate as generalists in the collective decision making of a democratic society. All citizen leaders need a basic understanding of the legal and economic framework of society and of the internal operations of business and nonbusiness organizations. For this reason, a high proportion of enrollments in the college is due to students registered in other colleges.



Each student in the College of Business Administration is required to take a substantial number of courses offered by other colleges of the University to obtain a broad scope of knowledge and interest. Through the use of elective hours in the program of study, the student has wide latitude to emphasize a special interest either within this college or in other colleges. Because of this flexibility in tailoring programs to personal interests, each student is invited to seek the counsel of a faculty advisor assigned through the department of his or her designated major field.

Direct entry into the College of Business Administration as a freshman gives a student the opportunity for early counseling with business faculty. The undecided or late-entering student finds it easy to shift to business, because the general business major, including the core courses, requires only 40 percent of the total minimum hours needed for graduation. This makes it possible to combine other study interests with a general business major.

## BACHELOR OF BUSINESS ADMINISTRATION

A candidate for the degree of bachelor of business administration (BBA) must complete the general University requirements for graduation which call for a minimum of 180 quarter hours with a point-hour ratio of 2.0 (C) average on all hours attempted. This point-hour requirement applies to the student's total record and also applies separately to the record on courses taken in this college. The College of Business Administration limits transfer credit for required business courses taken at a lower division level to such courses as it offers at that lower level. Other transfer credits accepted by the University are evaluated as either business or nonbusiness electives.

Courses included in the 180 hour minimum for the BBA degree must be chosen so that at least 72 quarter hours are earned in areas of business and economics and at least 72 quarter hours are earned in non-business areas (outside the college). However, eight hours of economics principles may be counted in either minimum. Among the nonbusiness courses, at least six quarter hours must be distributed in each of four

broad areas: humanities, mathematics, natural science and social science. Only three quarter hours of activity-type courses in the area of health, physical education and recreation are acceptable within the 180 hours of credit toward the BBA degree; no credit is allowed for ROTC summer camp. The minimum residence requirement for a student receiving a bachelor's degree from the College of Business Administration is the final year (three quarters) or the final 45 hours of credit.

### Curriculum

All candidates for the BBA degree must complete a core of courses covering a common body of knowledge in the tools of analysis and the operational fields of business plus concentration in a major area. Only a few core courses may be taken, as indicated below, during the freshman and sophomore years. This permits the student to acquire an early foundation in the basic arts and sciences before specializing in business during the junior and senior years. The recommended sequencing of courses follows:

Freshman	
Econ 101 Principles	4
Math 163A-163B Introduction to Calculus	8
Humanities (minimum)	6
Natural Sciences (minimum)	6
Social Sciences (minimum)	6
Electives	15
Sophomore	
Acct 101-102 Managerial Accounting	8
BusL 255 Law and Society	4
QM 200 Introduction to Business Data Processing	4
QM 201 Introduction to Probabilities and Statistics	4
Electives	25
Junior	
BA 310 Production Management	4
Econ 303 Microeconomics	4
Econ 304 Macroeconomics	4
Fin 325 Managerial Finance	4
Mgt 300 Management	4
Mgt 325 Communication Behavior in the Modern Organization	4
Mkt 301 Marketing Principles	4
Major Courses and Electives	17
Senior	
BA 470 Administrative Policy	4
Major Courses and Electives	41

### Major—Area of Concentration

Each candidate for the BBA degree must designate a major or area of concentration and complete the courses required by the

department offering that major. A student designates a major upon entering the college, but may change his or her major at any time. The course requirements for majors are indicated in the COURSES OF INSTRUCTION section of this bulletin. The majors are listed below by department:

Department of Accounting and Quantitative Methods

Accounting  
Quantitative Methods

Department of Administrative Sciences

Finance  
General Business (see Business Administration in the COURSES OF INSTRUCTION section)  
Marketing

Department of Economics

Business Economics  
(A major in economics also is offered for the bachelor of arts degree administered by the College of Arts and Sciences.)

Department of Organizational Science Management

NOTE: For pass/fail option, see the *Guidelines and General Information* section of this bulletin.

## Preparation for Law School

A student in the College of Business Administration who plans to enter law school should follow the bachelor of business administration degree curriculum and also elect, with the approval of his or her advisor, courses in other fields, especially American government, American and English history, English, philosophy, interpersonal communication and additional theory courses in the College of Arts and Sciences, except those which substantially duplicate material found in the typical law school curriculum.

The Ohio Supreme Court in its regulations governing the admission to the practice of law in Ohio provides that a student entering law school must be able to show possession of an undergraduate degree from an approved college if he or she wishes to take the Ohio Bar Examination. However, the Ohio Supreme Court provides for one possible exception to the preceding regulation — if a person has earned, subsequent to graduation from law school, a bachelor's degree through completion of courses and credits

other than those received in law school, and has made a record of academic achievement which is satisfactory to the Ohio Supreme Court, such a person may, in the court's discretion, be permitted to apply for admission to the practice of law in Ohio. Law schools in the state of Ohio have supplemented this Supreme Court rule by requiring an undergraduate degree of all entering students, regardless of the state in which they plan to take the bar examination.

For the benefit of those students who do not plan to take the Ohio Bar Examination and who do not plan to seek admission to an Ohio law school, a degree *in absentia* program is available as described in the following statement.

A student who desires to enter a school of law located outside Ohio at the end of three years of college work and receive the bachelor of business administration degree from Ohio University after completing the first year in law school may do so provided the following conditions are met: the student has the written approval of the dean of the College of Business Administration; a minimum of 135 quarter hours, including the required courses in the bachelor of business administration degree curriculum (BusL 255 excluded), are completed with a point-hour ratio of 2.0 on all hours attempted; a full year's work in an accredited law school is completed with an average equivalent to that prescribed for the bachelor's degree at Ohio University and the student is eligible for advancement without condition to the second year.

If there is any possibility that a student might wish to take the Ohio Bar Examination, he or she is urged to obtain the undergraduate degree before entering law school.

## Center for Business Enterprises

The Center for Business Enterprises was established to provide advisory services to small businesses in southeast Ohio. It also aims to provide a learning opportunity for students and faculty who participate in case studies that assist small businesses. As a by-product of this dialogue between students, teachers and practitioners, further research projects are encouraged and facilitated. Special courses to meet the identified needs of small businessmen may be arranged through the University Extension Division. The center is financed entirely through

grants and contract funds. It is administered by the Department of Administrative Sciences, but any student or faculty member of Ohio University who has the interest and appropriate preparation or skills may participate.

### **Center for Leadership Studies**

The Center for Leadership Studies was established to: (1) encourage and support research on leadership and related areas, (2) disseminate information on theory and research to both researchers and practitioners, (3) encourage and support dialogue between researchers and practitioners and (4) provide opportunities for students to become actively involved in significant leadership research and interact with professionals in the area. Members of the center have been active in these areas during the past six years. Their work has resulted in the publication of several books and numerous articles, as well as a number of short research notes and working papers. In addition, much effort has been directed toward the development of research instruments and learning devices. Members of the center are also active in consulting and training practitioners in the latest developments on leadership theory and research. The center is financed entirely through grants and contract funds, and it is administered by the Department of Organizational Science.

### **Ohio Council on Economic Education**

Since 1952 the College of Business Administration has played a leadership role in forming and developing the Ohio Council

on Economic Education which has its headquarters on the Athens campus. The Ohio Council is a privately supported organization of leaders from education, business, labor, agriculture and other fields working together to promote greater economic understanding through objective study. It is affiliated nationally with the Joint Council on Economic Education which, in turn, has worked closely with the American Economic Association and many other national organizations. The Ohio Council also works cooperatively with and lends support to colleges and public and private schools throughout Ohio.

The Ohio Council on Economic Education is governed by its Board of Trustees which is made up of leaders in education, business and labor throughout Ohio. The council endeavors to strengthen local programs in Ohio to improve the communication between schools, universities and community leaders by providing workshops, seminars and material development. These activities seek to blend the strengths of economic analysis with the methodology of education to improve societal understanding of economic forces.

Since 1967 the College of Business Administration has had a Department of Economic Education which offers graduate and undergraduate courses. Through the Graduate College, the department administers the MA program in economic education and provides a major in economic education for the PhD program in secondary education. The latter is unique in the nation and together with the work of the Ohio Council has placed Ohio University in a national leadership role in developing teachers and administrators in this field.

## The College of Communication

John R. Wilhelm, *Dean*

Richard E. Ham, *Associate Dean*

Thomas Dunlap, *Assistant Dean*

The College of Communication includes the School of Hearing and Speech Sciences, the School of Interpersonal Communication, the School of Journalism, the School of Radio-Television and the Center for Communication Studies.

The college was created to meet more fully the communication needs of a changing society. New forms of communication, the growth of information and interest in the theory and processes of communication and in communication barriers and disorders, the growth of the communication systems and the need for better communication between peoples, races, economic groups and among nations generally were all factors in a decision that Ohio University should move on a broad and substantial basis to prepare graduates for both traditional roles and for responsibilities not previously acknowledged.

The college is equipped to train graduates for professional careers in journalism, in broadcasting, for telecommunications, for organizational and interpersonal communication, as well as for research in all phases of communication, communication sciences and communication disorders. The college

operates on the assumption that professional competency in these areas calls for the highest possible proficiency in the field of specialization, plus the broadest possible liberal education in other disciplines.

In journalism, a fully accredited school offers work in advertising, magazine journalism, news-writing and editing, public relations, radio-television and foreign correspondence.

The journalism school is the fourth largest in the country, and each year graduates more than 200 seniors who move into professional careers on leading newspapers, magazines and news-gathering organizations as well as into advertising and public relations positions. Careers take them to all parts of the world.

The School of Radio-Television trains professionals for work in broadcasting generally, with specialized careers in radio-television news, station and network management, radio and television production and programming, as well as combined courses with the School of Journalism in reporting, editing, public relations, advertising and management.

Students work in the University broad-

cast services at radio station WOUB and the University television station, WOUB-TV, for actual experience. A special sports broadcast program is offered.

The School of Interpersonal Communication offers courses in public speaking, debate and discussion, small group and organizational communication, persuasion, rhetoric, the history of public address, etc. Students may study the problems and processes of communication first hand in business, industrial, educational and other types of organizations in the Center for Communication Studies and the Resource Center for Speech Communication. An intercollegiate forensic program is open to all students.

Hearing and speech sciences deal with the science of communication from the points of view of anatomy, neurology, physiology, physics, psychology and linguistics and with the pathology and treatment of speech and hearing disorders. The undergraduate program leads to a special certificate in speech and hearing therapy in the public schools. The program in speech pathology is accredited by the American Board of Examiners in Speech Pathology. Opportunities for clinical observation and experience are available in the extensive program of clinical services on-campus and in southeastern Ohio.

All programs of study at the undergraduate level lead to the bachelor's degree. More detailed descriptions and the requirements for the various majors offered in the four schools are given in the pages immediately following.

Graduate programs leading to the MA and PhD degrees are available in all areas. These are described in detail in the bulletins issued by the Graduate College.

## Degrees and Requirements

The College of Communication offers curricula leading to the degrees of bachelor of science in communication (in the schools of Interpersonal Communication and Radio-Television), bachelor of arts (School of Interpersonal Communication), bachelor of science in hearing and speech sciences (School of Hearing and Speech Sciences) and bachelor of science in journalism (School of Journalism).

Each candidate for a degree in the College of Communication must satisfy the requirements established by the school in

which he or she is enrolled. In addition to program requirements for completion of the bachelor's degree, a student must check with the proposed school for possible entrance requirements which are separate from admission to the college. Those requirements are specified on the following pages.

Also, the student must have a minimum total of 180 earned hours with a 2.0 (C) average in that total. He or she must also have a 2.0 (C) average in all hours attempted in the program. Only the final hours earned when courses are repeated count toward graduation.

The minimum residence requirement for a student receiving a bachelor's degree from the College of Communication shall be the final year (three quarters) or the final 45 hours of credit. In certain cases exceptions to the residence requirement may be made by the academic dean in consultation with the director of the school in which the student plans to enter.

## Advising

A student entering the College of Communication is assigned an advisor by the school which he or she plans to enter. Advisors will be assigned on the basis of student interest. Faculty advisors assist in the preparation of a schedule each quarter so that the proper sequence of courses in the major and appropriately related courses are selected. *The student, however, is responsible for seeing that all requirements for the degree are being met.*

## SCHOOL OF HEARING AND SPEECH SCIENCES

Donald J. Fucci, *Director*

The school grants BS, MA and PhD degrees in hearing and speech sciences. On the bachelor's level students can major in public school therapy or in clinic therapy. All students are urged, but not required, to complete five consecutive years, terminating with the MA degree. Practicum training occurs in the campus Speech and Hearing Clinic, five regional clinics, public schools, mental retardation centers and other clinic

or educational settings. Consultation concerning all types of communicative disorders may be arranged with the coordinator of clinical services. Remedial training and diagnostic evaluation are provided without charge to University students. The audiologic division evaluates all types of hearing problems from infancy to old age, including hearing aid evaluations. Nominal fees are charged for speech and hearing services to nonstudents. Research in therapy, acoustics and other areas of communication is implemented by well-equipped laboratories with four soundproof rooms.

The programs in speech pathology and audiology are accredited by the American Board of Examiners in Speech Pathology and Audiology and the school is an affiliate member of the National Association of Hearing and Speech Agencies. Information about organizations, major programs and requirements can be obtained from the school office in Lindley Hall.

## MAJOR IN HEARING AND SPEECH SCIENCES

### Freshman

Freshmen must select 27 quarter hours of coursework from four general education areas. At least one course must be selected from each area, and in the English area a specific course, Ling 270, must be one of the courses taken. The four general education areas include English, comparative arts and/or philosophy, social science, science and/or mathematics.

In addition to the 27 quarter hours of general education courses, Psy 101, HSS 107 and approximately 11 hours of electives are required. Freshmen are encouraged to take Psy 121, Elementary Statistics, as part of the mathematics area in the freshman year.

Majors are assigned advisors and required to meet with them. The program is complex and highly interrelated. Majors must not alter their programs without consulting with an advisor. Regardless of specialization plans, all HSS majors should apply during the third quarter of the freshman year to the College of Education for admission to teacher education (see catalog on College of Education).

### Sophomore

During the sophomore year students must

pass a speech proficiency test and establish phonetic transcription proficiency.

HSS 108	3	HSS 310	5	HSS 240A	2
HSS 309	3	HSS 351	3,4	InCo 220 or	
HSS 350	3,4	Psy 131	4	215	3,4
Psy 275	5	Elective	3	Psy 376	5
OR				OR	
EdCt 275	5			EdSp 271	3
Elective	1-3			Psy 173	5
				OR	
				EdEl 200	4
				OR	
				Home Ec 160	4

Regardless of specialty plans all HSS majors should apply in the third quarter of the sophomore year to the College of Education for junior standing (see catalog on College of Education). Between the sophomore and junior years, EdPl 360/361 must be completed.

### Junior

Majors cannot continue without speech clearance. Any specialty other than public school therapy must be approved by HSS staff.

HSS 418	5	HSS 415	5	HSS 370	3,4
HSS 313	3,4	HSS 314	3,4	HSS 419	4
HSS 240B	1	HSS 341A	1	HSS 422	3,4
Psy 333 (op)	5	HSS 443	4	HSS 341B	2
EdPl 360	2	HSS 345	4	Psy 332 (op)	5

Cannot continue after junior year without clearance on phonetic transcriptions. Regardless of specialty plans all HSS majors should apply for student teaching in first quarter of the junior year. Majors wishing clinical internships also apply during first quarter to undergraduate coordinator in hearing and speech sciences.

### Senior

Must student teach or complete clinical internship or meet special practicum requirements (approved by HSS staff). Must leave one full quarter vacant for student teaching or clinical internship.

Student Teaching Quarter		Other Two Quarters	
EdPl 461	6	HSS 371	3,4
EdPl 462	6	HSS 424	3,4
EdPl 465	3	HSS 479	1
OR		HSS 472	3,4
		HSS 444	4
HSS 437	2	HSS 442A	1
		HSS 442B	1
		HSS 480 (elective)	1
		EpSp 474	4

Select one course from Psy 310, Psy 307, Ling 350, EdEl 400 or Psy 490A-Z.

If not student teaching, replace with 3-15 hours of HSS 442C for internship or special practicum experience.

## SCHOOL OF INTERPERSONAL COMMUNICATION

Paul H. Boase, *Director*

The School of Interpersonal Communication offers a general, liberal education, emphasizing the scientific and artistic bases of communication. Students in three undergraduate majors study group communication and public address, communication theory and process, organizational communication as applied to business, industrial and educational institutions and speech communication in the secondary schools.

Specific major programs are developed to meet the needs of each student. A combination of areas and specific courses can lead to professional or preprofessional competence in such fields as teaching, foreign service, law, politics and government, theology, public relations, labor-management relations, personnel, campaign and propaganda administration and poll and survey management. The School of Interpersonal Communication places qualified undergraduate and graduate majors in trainee or internship programs on credit or noncredit basis as suitable opportunities become available.

Through its forensic program, interpersonal communication provides the opportunity for all students to meet outstanding undergraduates from 300 or more colleges and universities in intellectual competition. Thirty tournaments at other schools and three held on campus enable students to develop skills in debate, extemporaneous speaking, oratory, discussion and oral interpretation. Excellence in scholarship and superior performance in speech communication are rewarded in several ways. Delta Sigma Rho-Tau Kappa Alpha, national honorary, is open to students in the upper third of their class who excel in forensics. The Lorin C. Staats Award is given to the outstanding senior who has participated with distinction in several forensic areas. The outstanding junior or senior debater receives the Francis McVicker Maxwell Award. Entering freshmen with notable high school forensic records are eligible for special talent awards of approximately \$400.

## Resource Center For Speech Communication

The Resource Center for Speech Communication identifies, develops and collects learning materials for use in the improvement of instruction in communication. Listening tapes, recorded speeches, films and teaching guides are among those items available to both faculty and students throughout the University. The center also takes an active role in planning and developing seminars, workshops and projects for students who are interested in communication and public education.

## Preparation for Law School

A student in the School of Interpersonal Communication who plans to enter law school normally completes a course of study which leads to the bachelor of science or bachelor of arts degree. The objectives of prelegal education, as stated by the Association of American Law Schools, are: 1) comprehension and expression in words, 2) critical understanding of the human institutions and values with which the law deals and 3) creative power in thinking.

The prelaw student in InCo will be individually advised and counselled so that he or she might not only meet these educational goals within a liberal and humanistic course of study but also develop preprofessional competence according to his or her own special career aims in the legal profession. Since no prescriptive curriculum is specified, the student can combine several areas and courses, usually from as many of the following as possible: communication theory, practice and literature; English composition and literature; history; government; behavioral sciences; humanities; comparative arts; economics; philosophy. Curricula and activities which develop the capacity for independent thought are strongly recommended.

## General Requirements for All InCo Majors

1. InCo 101 or InCo 103
2. Five hours of English selected from the following courses: 171A-F, 173S, 175S, 181

### 3. *General Communication and Organizational Communication majors*

Nine hours in each of two of the following groups:

Humanities  
Mathematics  
Natural Sciences  
Social Sciences

### 4. *General Speech with Certification majors*

Forty-five hours of general education distributed to include at least two courses in each of the following fields:

Science and mathematics (one course in each)

Comparative arts and/or philosophy  
Social science (Psy 101 required and can be counted as one of two courses)

English and/or foreign language

## Major in General Communication

Maximum freedom of choice in course selection is the primary feature of this major. Its aim is development of a broadly trained student in the liberal arts—humanistic aspects of interpersonal communication. Majors may prepare for careers in law, industry, theology, higher education, etc.

#### A. Required courses: 12 hours

Four courses are specifically required:

InCo 107—Introduction to Language Behavior  
InCo 205—Techniques of Group Discussion  
InCo 215—Argumentation and Debate  
InCo 450—Introduction to Rhetorical Theory

#### B. Additional major courses: 40 hours

Students must select one course in *each* of the following areas:

Public Address	Communication Theory
InCo 353	InCo 334
A,B,C or D	InCo 335
InCo 412	InCo 444
InCo 433	InCo 446
InCo 435	InCo 452
InCo 442	
InCo 458	Group Process
InCo 460	InCo 404
	InCo 405
	InCo 445

Students must select one course in *three* of the following areas:

Theater Arts	Radio-Television
ThAr 100	R-TV 105
ThAr 215	R-TV 300
ThAr 320	R-TV 467
ThAr 301	
ThAr 370	Journalism
ThAr 371	Jour 105
ThAr 372	Jour 311
	Jour 412

### Hearing and Speech Sciences

HSS 108

HSS 309

HSS 310

The remainder of the 40 hours may be selected from interpersonal communication, radio-television, theater, journalism or hearing and speech sciences.

C. General electives as necessary to complete minimum University requirement of 180 quarter hours for graduation.

## Major in General Speech with Certification

This major provides a program for students interested in high school teaching. The emphasis stresses a liberal arts education as related to interpersonal communication and professional preparation for state teaching certification.

This major provides three program options to students enrolled in the School of Interpersonal Communication: A communication comprehensive emphasis (90 quarter hours), a speech emphasis (60 quarter hours) and a speech-theater emphasis (68 quarter hours). The comprehensive communication program will certify a student to teach speech, journalism, reading and English, or any combination thereof in high school. The other programs will certify in speech only; the first emphasizes speech communication, the latter speech and theater. For details of these programs, see p. 102 under Education, or contact the office of the director of the School of Interpersonal Communication in Kantner Hall.

## Major in Organizational Communication

This major provides a challenging program of study across the broad spectrum of human communicative behavior, emphasizing both theoretical bases and practical applications. It is designed for those students aiming for professional careers and administrative positions in business, educational, governmental, industrial, labor or other organizational units.

#### A. Major Course Requirements

InCo 205	4
InCo 210	2
InCo 334	4
InCo 404	3
InCo 442	4
InCo 445	4
InCo 446	4
InCo 498	4
InCo Electives (16 hours minimum)	



- B. Requirements Outside the Major  
Eng 308
- C. Related Courses and Proficiency Requirements
1. Either of the following:
    - a. A statistics requirement of ten hours:  
Math 113 and Psy 121  
OR
    - b. A computer science requirement of ten hours: CS 201 and either CS 202, 251, 252, 254 or 308.
  2. Completion of two related areas (minimum of 26 hours in each with at least 15 hours from courses numbered 200 or above) from the following suggested areas:
    - Behavioral Sciences
    - Comparative Arts
    - Government and Political Science
    - Humanities
    - Personnel Management and Administration
- D. General electives as necessary to complete minimum University requirement of 180 quarter hours for graduation.

## SCHOOL OF JOURNALISM

Guido H. Stempel III, *Director*

### BACHELOR OF SCIENCE IN JOURNALISM

The Ohio University School of Journalism is accredited by the American Council on Education for Journalism. It is one of a limited number of accredited schools and departments of journalism in the United States. As such, it is one of the members of the American Association of Schools and Departments of Journalism.

#### Purposes and Objectives

The purposes of the Ohio University School of Journalism are (1) to provide thorough broadly based *professional* education and training in journalism and communications, leading to the BSJ and advanced degrees; (2) to provide *liberal* and *cultural* background in the arts, literature, languages, social and natural sciences; (3) to promote scholarly research and achievements by the faculty and students; (4) to provide leadership and assistance to high school journalism and to professional asso-

ciations on state, national and international levels, and (5) to set high standards of journalism ethics.

Journalism today is a profession—like medicine, law, teaching or engineering. It requires its practitioners to be culturally educated and professionally trained. Blending the liberal arts with professional courses, Ohio University journalism students take approximately three-fourths of their courses outside the professional school.

Five sequences are offered, all leading to the bachelor of science in journalism degree: advertising-management, magazine journalism, news writing and editing, public relations and radio-TV news.

Courses in photojournalism are taught by the School of Journalism.

While working toward their degrees, students may serve on the staff of *The Messenger*, an independently owned daily newspaper. The news editor, managing editor and women's editor are faculty members of the School of Journalism. The student staff members of *The Messenger* gather and write news, edit local and Associated Press copy, write headlines and prepare copy and layouts. This training prepares students to take and hold jobs immediately after graduation.

Practical experience is also available on a laboratory magazine and in graphics and advertising laboratories. Many students add to their experience by helping edit *The Post*, daily campus newspaper, or the *Spectrum Green*, University yearbook.

In radio-television news, students get practical experience in preparing and broadcasting news over the University's radio and television stations.

**Internship Program.** Consistent with its policy of combining classwork with practical training, the School of Journalism has inaugurated a journalism internship program. Juniors or seniors are eligible for appointment as interns. The period of internship is ten weeks. The intern is provided with as varied experience in practical journalism as possible and is paid a moderate sum for his or her work and study. No credit will be granted for internship work itself. However, upon completion of the internship period, a student is permitted to enroll the following quarter in Jour 462, Internship, for three hours of credit. The selection of the interns is made by the director of the journalism internship program.

## Curricula and Requirements

The American Council on Education for Journalism includes among its "Accrediting Standards" the following provision:

Generally three-fourths of the student's program should consist of courses in the liberal arts and sciences and one-fourth in professional courses in journalism.

Journalism students at Ohio University meet the above provision largely by fulfilling two sets of requirements: general and specialization area requirements. The first of these provides for a liberal arts and sciences core for all students, as follows:

Government (2 qtrs)  
Sociology or Anthropology (2 qtrs)  
Economics (2 qtrs)  
Psychology (1 qtr)  
History (3 qtrs)  
English (2 qtrs)

*Two of the following:*

Language (3 qtrs basic sequence or  
1 qtr advanced)  
Science (3 qtrs of one science in accord with Arts  
and Science catalog description)  
Computer science, quantitative methods, statistics  
(3 qtrs)  
Philosophy (2 qtrs, one of which must be logic)  
Comparative arts 117, 118, 119

To this liberal base, which should be the focus of the freshman year, journalism students add courses in a desired area or areas of specialization. This requirement may be filled by completing any one of three options:

1. a minimum of 36 hours in a single department within the College of Arts and Sciences (usually structured in accordance with the major requirements of the selected department),
2. a minimum of 18 approved hours in each of two departments in Arts and Sciences,
3. a minimum of 18 approved hours in one Arts and Sciences department and 18 approved hours in any other series of related courses.

Additional nonjournalism courses are required in some sequences. No course may be counted in more than one type of requirement. For example, a course used to meet a general requirement may not be applied to a sequence or specialization area requirement as well.

To assure the liberal stress of the overall program, the professional content of the BSJ is limited to one-fourth of the 180 hours required for the degree. Credits for all courses in journalism, radio-television and photography should total at least 45 hours

and not more than 55 hours. All professional hours beyond 55 must be compensated for by nonprofessional hours over the required 180-hour total. Nonjournalism courses which are required in sequences are not to be counted as part of the 45-55 total professional hours.

## Standards

1. Admission to the School of Journalism is formal and includes completion of an application form and a written statement of approximately 500 words as to why the student is applying. No student is considered a journalism major until this completed form is in his or her School of Journalism file.
2. To qualify to take Jour 231, students must first pass an English proficiency examination. Passing score for this test is 75. Any student who does not pass on the first effort will be permitted to retake the examination at a later date. Passing scores on retake examinations are 75 if the exam is taken as a sophomore and 80 for juniors and seniors.
3. To qualify for admission in Jour 231 students must achieve at least 25 words per minute on a typing examination. This exam is administered on the first day of the Jour 231 class.
4. To remain active in the BSJ program, a student must earn at least a C in News Reporting in the sophomore year.
5. Journalism majors are not permitted to take any journalism or radio-TV courses pass/fail. This includes both core requirements and sequence requirements.

## Journalism Sequences

All journalism majors complete a basic 14-hour core of four courses. These are: Jour 231, News Reporting (4), Jour 333, News Editing (4), Jour 411, Newspaper and Communications Law (3) and Jour 412, Mass Media and Society (3).

Jour 105, Introduction to Mass Communication, a freshman course, is optional, but recommended for all those entering journalism.

The additional requirements for the various sequences are as follows:

*Advertising*

Jour 221	5
Jour 250	5
Jour 321	4
Jour 323	2
OR	
Jour 462	3
Jour 450	3
OR	
Jour 482	4
Journalism electives to make 45-55 hours	
Mkt 301	4

*Management*

Jour 250	5
Jour 321	4
Jour 323	2
OR	
Jour 462	3
Jour 481	3
Journalism electives to make 45-55 hours	
Mkt 301	4
Acct 101	5
Acct 102	5
BusL 255	3
Psy 261	3-5

*Public Relations*

Jour 221	5
Jour 331	3
Jour 332	2
OR	
Jour 462	3
Jour 430	3
Jour 471	5
Jour 472	4
Choose two:	
Jour 441	4
Jour 351	3
Jour 450	3
Jour 465	3
Journalism electives to make 45-55 hours	
Select one course from the following:	
Soc 310, 311, 412, 413 or 414	4

*Magazine*

Jour 221	5
Jour 430	3
Jour 431	3
Jour 441	4
Select two:	
Jour 331	3
Jour 363	3
Jour 432	3
Jour 442	3
Journalism electives to make 45-55 hours	
Eng 307	5
OR	
Eng 308	5
OR	
Eng 309	5

*News Editing and Writing*

Jour 221	5
Jour 311	5
Jour 331	3

Jour 332 and 334	2 and 2
OR	
Jour 462	3
Jour 464	3
OR	
Jour 465	3
Journalism electives to make 45-55 hours.	

*Radio-TV News*

Jour 351	3
Jour 353	2
OR	
Jour 462	3
Jour 452	3
Jour 455	3
R-TV 106	4
R-TV 121	4
R-TV 310	4
Journalism electives to make 45-55 hours.	

**Carr Van Anda Program**

A junior with a 3.0 accumulative average in journalism and 2.5 accumulative average in all work may elect a sequence making up his or her own program in journalism. It will consist of the basic core of four courses plus the student's choice of journalism courses to equal 45-55 hours. The program must have the approval of the student's advisor and the director of the School of Journalism. Formal application is necessary.

**SCHOOL OF  
RADIO-TELEVISION**

Roderick D. Rightmire, *Director*

The School of Radio-Television offers programs of study leading to bachelor's, master's and doctoral degrees. The baccalaureate program is a professional degree program and is designed to prepare students for meaningful careers in all aspects of radio and television. Areas given special attention are history, business aspects of broadcasting, production and performance, writing, educational uses of media, programming and electronic mass communication theory. An experienced and diverse faculty is supplemented by an extensive program of guest lecturers from leading industry organizations.

The classroom and laboratory experiences of the students are augmented by practical on-the-air experience using three University owned and operated stations: WOUB-AM, WOUB-FM and WOUB-TV.

A large part of the operation of these stations is conducted by students in radio-television.

Talent scholarships of approximately \$480 per year, and renewable for four years, are available to high school seniors. These are based primarily on demonstrated talent in the field of radio-television.

In addition, the following awards are available in radio-television:

1. The Jesse Zousmer Foundation, created in memoriam to an Ohio University alumnus who was head of ABC Network News until his untimely death returning from Vietnam, provides funds for faculty and student documentary and public affairs productions.

2. The Richard Linke scholarship has recently been established to assist students in radio-television or related areas of the College of Communication.

3. Each year Ohio University participates in the James D. Shouse awards, presented by the AVCO Broadcasting Company, which provides a plaque and a monetary award to the outstanding senior in radio-television.

4. There is a student group affiliation with the Columbus Chapter of the National Academy of Television Arts and Sciences.

5. Affiliation with the National Association of Educational Broadcasters, the International Radio and Television Society, the Ohio Association of Broadcasters and the Broadcast Education Association provides opportunities for contacts and broad development in the broadcasting field.

## REQUIREMENTS FOR MAJOR IN RADIO-TELEVISION

### General Requirements

1. Arts and humanities — 20 quarter hours, including at least eight hours of 300-400 level courses. Courses may be elected in the following: art, art history, classical languages, comparative arts, English, film, modern languages, music, philosophy and theater.

With advisor's approval, courses may be selected from the Black Studies Institute and University Professor offerings.

2. Social sciences—20 quarter hours, including at least eight hours of 300-400 level courses. Courses may be elected in the following departments: anthropology, eco-

nomics, government, history, international studies, management, marketing, psychology or sociology.

With advisor's approval, courses may be selected from the Black Studies Institute and University Professor offerings.

3. Communication sciences—20 quarter hours, including at least eight hours of 300-400 level courses. Courses may be elected in the following departments: computer science, hearing and speech sciences, interpersonal communication, journalism and linguistics.

With advisor's approval, courses may be selected from the Black Studies Institute and University Professor offerings.

4. Mathematics and/or natural sciences—Three courses, of which at least two must be in sequence. Courses may be elected in the following departments: astronomy, biology, botany, chemistry, geology, mathematics, physical science, physics or zoology.

### Required Courses For All Radio-Television Sequences

R-TV 106	4
R-TV 200	6
R-TV 270	4
R-TV 355	4
R-TV 479	4

### Sequence Requirements

Each undergraduate student is expected to complete the requirements in one of the following sequences:

#### *Electronic Mass Communication Sequence*

This plan of study is aimed at providing an understanding of some skills needed in broadcast research; an awareness of the social, psychological and cultural impacts of the mass media, and a familiarity with the theories of mass communication. The following courses are required:

R-TV 467	4
R-TV 470	4
R-TV 471	4

In addition to general requirements, at least 35 hours from the following areas with at least three courses in each of two areas: anthropology, business communication courses, journalism, psychology, sociology. Selections in this sequence must include Jour 412 and Soc 413.

### *Management/Administration Sequence*

This plan of study is aimed at providing an understanding of the managerial processes and knowledge which are basic to the development of managerial skills. The following courses are required:

R-TV 460.....	4
R-TV 461.....	4
R-TV 462.....	4

In addition to general requirements, at least 35 hours from the following with a minimum of two courses each taken from four of the areas, or three courses each from three of the areas, or four courses from two of the areas: accounting, business administration, business law, computer science, economics, finance, management, marketing. Selections in this sequence must include Econ 101-102, Acct 101-102, Mgt 300.

### *Radio-Television Production Sequence*

This plan of study is aimed at providing basic skills in radio-television production with special emphasis on the creative responsibilities of production direction. In order to advance into the production sequence, a student must achieve at least a 3.0 average in R-TV 200. If the average in R-TV 200 is below 3.0, and the student feels that there were extenuating circumstances that affected the grade, petition may be made through his or her advisor for reconsideration. The following courses are required:

R-TV 208.....	4
R-TV 413 or 452.....	4
R-TV 417.....	4
R-TV 418.....	4
R-TV 431.....	4

In addition to general requirements, at least 30 hours in the following areas with no more than three courses in any one area: theater arts, film, art, art history, comparative arts, dance, graphic design, music, photo journalism.

### *Self-Directed Sequence*

An undergraduate student who can demonstrate a high level of achievement (either

by academic or professional competence) is eligible for this sequence. A statement of purpose and a program of study are structured in consultation with the student's academic advisor and must be submitted to the faculty of the school for approval.

### **Other Requirements and Standards**

Students are expected to demonstrate proficiency in typing and basic language skills.

Required radio-television courses may not be taken on a pass/fail basis by an R-TV major.

No course may be counted in more than one type of requirement. For example, a course used to meet a general requirement may not also be applied to meet a sequence requirement.

R-TV/Jour 105, Introduction to Mass Communication, is not required but is a recommended elective for freshmen.

Undergraduate radio-television freshmen and sophomores will be considered provisional majors. To be eligible to transfer from provisional status to one of the four major sequences described above, a student must: (1) complete 90 quarter hours and (2) attain a C (2.0) average in the following three courses: R-TV 106, Introduction to Radio-Television; R-TV 200, Introduction to Production and Writing; R-TV 270, Broadcasting and the Public (formerly R-TV 300).

Students who transfer to the School of Radio-Television, either from other institutions or within the University, will be required to attain a C (2.0) average in the first 12 hours taken in radio-television in order to remain eligible to continue as radio-television majors.

Students transferring into the School of Radio-Television from another institution will be allowed to apply no more than 30 transfer credits toward their majors. Further, a minimum of 20 credits in radio-television must be taken at Ohio University.

## The College of Education

Samuel Goldman, *Dean*

John A. Masla, *Associate Dean*

Fred B. Dressel, *Assistant Dean*

The College of Education is a professional college and therefore its major goal is the preparation of persons to become professionals in education and other related fields. A wide range of programs is offered for teaching in elementary schools and high schools and for nonteaching programs in home economics, health and recreation. The college also provides graduate study in a wide range of professional education fields as well as programs in home economics and sports administration.

All undergraduate programs include a broad base of general education, intensive preparation in the subjects to be taught and professional emphasis and focus which combine educational theory with actual practice in meeting the responsibilities of the profession. Each program is thus designed to prepare students to enter the profession possessing the liberal background, functional knowledge and professional understanding and skill which are required for professional success.

The College of Education is accredited by the North Central Association, the National Council for Accreditation of Teacher Education and is approved for teacher training by the State Department of Education of Ohio.

## BACHELOR OF SCIENCE IN EDUCATION

The degree, bachelor of science in education, represents the completion of a program designed to develop in the student competence in three areas: the broad awareness of the principal academic fields developed through a true university education; the deeper study of the particular areas in which the student seeks the undergraduate mastery necessary for teaching these subjects, and the understanding of the professional responsibilities of teaching and demonstrated skill in meeting them.

The degree is granted upon completion of the general graduation requirements of the University, including a minimum of 180 quarter hours with a point-hour ratio of 2.0 (C) on all hours attempted, but including only the final hours and points in repeated courses, and in addition a 2.0 point-hour ratio in the major teaching field.

Besides these general University requirements each student must complete the requirements established for the program he or she is following.

NOTE: For pass/fail option, see p. 35.

A student who plans to teach in the

elementary grades registers in the College of Education. The curricula offered by the College of Education include the requirements of the State Department of Education and qualify a student to obtain a provisional certificate to teach in the elementary grades and kindergarten-primary grades, depending upon the student's preparation.

A student who plans to teach high school academic or special subjects ordinarily enrolls in the College of Education. The curricula of the College of Education include the requirements of the State Department of Education, and qualify the student to obtain a provisional certificate to teach the subjects indicated on the certificate.

A student who plans to teach in special education classrooms registers in the College of Education. The curricula offered by the College of Education include the requirements of the State Department of Education and qualify a student to obtain a provisional certificate to teach in educable mentally retarded and learning disabled classrooms.

## SELECTIVE ADMISSION AND RETENTION

The college has a program of selective admission and retention that applies to all students who intend to complete the teacher preparation program through Ohio University. The purpose of the selective admission and retention program is to provide both the student and the college with an opportunity to assess each student's capabilities as a prospective teacher. There are three selection phases in this program, two of which are described below and the third phase is detailed under *Student Teaching*.

### Admission to Teacher Education

Application for admission to teacher education should be made during the third quarter of the freshman year. The criteria students must meet by the end of the quarter in which they apply are:

1. Completion of 45 quarter hours of credit,
2. Completion of Psy 101,
3. Sufficient grade point average to be above probationary status.

Applications for admission to teacher

education may be obtained in the Student Personnel Services Office, McCracken Hall.

Students may not enroll in EdEI 200, EdSe 250, EdSp 271, EdSp 272, EdSp 373 or EdSp 470 unless they have been admitted to teacher education.

### Admission to Junior Standing

Application for admission to junior standing in teacher education should be made at the end of the third quarter of the sophomore year. Criteria should be met by the end of the quarter in which the student applies.

1. Criteria that must be met by all students in teacher education:
  - A. Completion of 90 quarter hours of credit.
  - B. Completion of EdCI 275 or Psy 275.
  - C. Satisfactorily meeting the speech proficiency requirement.
  - D. Attainment of a 2.0 accumulative point-hour ratio.
  - E. A satisfactory report from the Health Center.
  - F. A satisfactory report from the academic advisor.
  - G. A satisfactory report from Student Records Office.
2. Special criteria for students in elementary education:
 

Completion of EdEI 200.
3. Special criteria for students in secondary education:
  - A. Completion of EdSe 250.
  - B. Achievement of a 2.0 accumulative point-hour ratio in each of the declared teaching fields.
  - C. Adequate progress toward completion of the 45 quarter hours of general education required by the state certification law.
4. Special criteria for students in special education:
  - A. All special education majors except those in speech and hearing therapy must complete EdSp 271, 272, 373, 470 and EdEI 200.
  - B. Speech and hearing therapy majors must complete EdSp 271 or Psy 376.

Students must be admitted to junior standing in teacher education prior to enrolling in any of the following courses: EdEI

310, 321, 330, 340, 350 and 460; all secondary education courses numbered 300 or above; all special education courses numbered 300 or above *except* for 373 and 470.

## SCHOOL OF CURRICULUM AND INSTRUCTION

The School of Curriculum and Instruction comprises three major academic areas—elementary education; secondary education and special education, and courses in educational media, international and comparative education and educational foundations. The school provides the opportunity for students admitted to teacher education to pursue undergraduate courses leading to teaching certification in the State of Ohio. Listed below are program descriptions and course requirements for each of the certification patterns offered.

A junior or senior who has a 3.0 accumulative grade point average and is able to schedule 15 to 18 hours of independent study in the department may be eligible for departmental honors recognition. Honors work extends beyond the required teacher-education course sequences.

### Sophomore Block Program

The School of Curriculum and Instruction offers a unique approach to teacher education at the sophomore level for students enrolled in elementary, special and secondary education programs. The Sophomore Block Program emphasizes an integration of theory and practice through college classes and a teacher-assistant activity in local public schools.

#### *Key components of the program*

1. Use a team approach to integrate course material.
2. Stress reliability of college students to perform a service in the public schools.
3. Emphasize individual diagnosis and prescription.
4. Combine introductory education courses with practical classroom work in area schools.
5. Make education courses relevant to highly motivated students.
6. Use demonstrated competencies for evaluation purposes.

Each student must register for a special section of each of the following courses plus two hours of independent study. Class time on campus is reduced to compensate for some of the time spent in the schools. Sophomore Block students spend four mornings each week in the schools and attend classes in the afternoons. The program consists of a full 18-hour block.

#### *Description of courses*

- EdSp 271 Introduction to Special Education
- EdSe 250 Analysis of Teaching
- EdEl 200 Studies of Children and Adolescents
- EdCI 275 The Learner and the Learning Process

#### *Teaching Assistants in Public Schools*

The college professors who teach the courses on campus will supervise the students in the public schools. Each professor will work with five to ten cooperating teachers, each of whom will have one or two teaching assistants.

Teaching assistants will perform such duties as assisting teachers to lead small group discussions, tutoring pupils individually, keeping records, administering tests, preparing classroom materials, helping to conduct field trips and operating audio-visual equipment.

In addition to the services rendered as a teaching assistant, participants will carry out assignments related to each course. Some of these assignments may include video taping micro-teaching sessions with small groups of students, observing learning difficulties, planning a lesson involving a particular learning theory or constructing a test and analyzing the results.

Application forms are available in the School of Curriculum and Instruction Office, Room 119, McCracken Hall.

### Junior Participation Program

During the past four years, the School of Curriculum and Instruction has experimented with a variety of means of establishing a teacher preparation program which provides a closer tie between extensive experience with children in classrooms and professional course content. Traditionally, the student has received instruction in educational theory and methodology in a campus setting with only limited opportunity to



relate the content of these experiences to actual classroom settings prior to student teaching. To be insured a degree of success in teaching, the student must develop competencies in diagnosis, planning, directing and evaluating an instructional program. The most fertile atmosphere for maximum achievement of these competencies requires both access and responsibilities to children in classrooms.

Students who are interested in the junior project will enroll for 16 hours of credit during the one quarter and 17 hours during the second quarter. Participation in an elementary or secondary classroom will be an important part of this experience, which will complement the methods courses. For prospective elementary teachers, competencies in the teaching of reading and language arts and the teaching of mathematics, identified in the seminars, will be developed working with children in the participating schools during the fall quarter. For a prospective teacher of the secondary level, competencies will be developed in the teaching specialty working with students in participating schools and coordinated and extended in seminar classes.

Three half-days will be spent in the public schools each week. Students will be expected to attend seminar sessions related to the courses each day. This is a demanding program, but is one which should make the professional courses meaningful. Students will have to arrange for their own transportation to the participating schools.

## ELEMENTARY EDUCATION PROGRAM

In order to receive a BSEd degree and certification in elementary education students must complete the total program in elementary education. Upon completion of the program students are eligible for a four-year provisional teaching certificate for teaching in grades one to eight. Kindergarten certification may also be obtained by completing the necessary kindergarten requirements as specified below.

### General Education

Psy 101—General Psychology	5
English	14

These hours include InCo 101 or 103 which is re-

quired unless a semester or more of speech has been completed in high school. If InCo is waived on this basis, then these hours must be made up in English. Each student must also complete Ling 270.

Mus 160—Music Fundamentals	3
Natural Science	12

All students must complete at least 12 quarter hours of science including at least one course in biological science and one course in physical science. Recommended choices include Bot 101 or Zool 101, Bot 102, Phys 101L, 102L and 103L. Other possibilities include any courses in zoology, botany, chemistry, physics and geology. All courses taken to complete this requirement must contain a laboratory component.

Mathematics	9
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Math 120 and 121 are recommended; however, any mathematics courses numbered above 120 and equaling nine quarter hours would be acceptable.

Social Studies	27
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Each student is required to complete at least 27 quarter hours of social studies. Social studies is defined as any history, government, economics, sociology, anthropology, social welfare, geography and economic education course.

Specific requirements are the completion of at least one course in American history or American government, and Geog 121—Cultural Geography.

Physical Education	4
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HPER 202—Personal and Community Health required.

No more than six hours of HPER activity courses may be counted toward the degree and none count in general education.

## Professional Sequence

The following professional courses are required of all elementary education majors. To be eligible to enroll in these courses students should note the prerequisites in the course description section of this catalog.

EdCI 275—The Learning Process in the Classroom	5
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OR

Psy 275—Educational Psychology	5
Art 360—Art for the Elementary Teacher	6
Mus 161—Music for the Classroom Teacher	3
HPER 270—Teaching of Physical Education	3
EdEI 200—Studies of Children	4
EdEI 310—The Teaching of Reading and Language Arts in the Elementary School	6
EdEI 321—Children's Literature	4
EdEI 330—Teaching of Math in Elementary School	4
EdEI 340—Teaching of Science in the Elementary School	4
EdEI 350—Teaching of Social Studies in the Elementary School	4
EdEI 460—Child and the Curriculum—(This course is to be taken after the completion of or concurrently with student teaching)	4

## Plans A, B and C

Each elementary education major is assigned to a given plan to help assure that he or she will get the professional courses

needed prior to the quarter in which student teaching is scheduled. Students are assigned to one of three plans to equalize section enrollments by quarters, including student teaching. (Plan sheets are available in the office of the School of Curriculum and Instruction, 119 McCracken Hall.)

**Kindergarten-Primary Sequence.** Students seeking kindergarten-primary certification should elect the courses listed above for the professional sequence and, in addition, EdEl 304 (3 hours) and EdEl 305 (3 hours), the two specialized courses in theory, materials and methods of kindergarten-primary education. Also, student teaching must be done on the kindergarten-primary level. Students seeking this certification will complete one quarter of student teaching in an elementary situation followed by an additional part-time student teaching assignment in a kindergarten.

**20-Hour Concentration.** A 20-quarter-hour concentration is required. This concentration may be in any department outside the College of Education, but may be taken in the School of Health, Physical Education and Recreation or the School of Home Economics. The 20 hours are to be beyond any of the general education requirements. For example, if a student wishes to complete the concentration in psychology, he or she would have to complete 20 hours beyond Psy 101 and Psy 275 which are already required. A student may not combine several fields to make a concentration. In other words, the 20 hours must be in one field or one department. The only exception is in the case of a person wishing to concentrate in science. He or she may combine several sciences to complete the concentration. Note that special education can NOT be used as a 20-hour concentration.

### Professional Laboratory Experience

EdPI 360 or 361 Field Experience in Elementary or Secondary Schools or Field Service in Education..... 2

Field experience is a course in which a student spends a minimum of nine days observing and participating in an elementary classroom in a school of his or her choice in September prior to the start of the University. This should be done the September prior to the start of the junior year in college. Once the University commences there

is only one evening meeting to attend. A student must register for this course as for any other course and must also sign up for it in the Student Teaching Office, Room 129, McCracken Hall, in May prior to the September when it is to be done. Anyone interested in EdPI 361 — Field Service — rather than field experience should contact the Student Teaching Office for information.

EdPI 461 and 462 Student Teaching in  
Elementary School..... 6 + 6  
EdEl 465 Student Teaching Seminar..... 3

These three courses are taken concurrently in one quarter and constitute the student teaching requirement. Additional student teaching is required of students seeking kindergarten certification. A person should make an application for student teaching by December 1 of the year prior to the year in which student teaching is to be taken. For example, anyone doing student teaching during any of the three quarters of the school year 1976-77 should apply by December 1, 1975. For further information contact the Student Teaching Office.

## SECONDARY EDUCATION PROGRAMS

### Professional Requirements (37-40 hours)

EdCl 275 or Psy 275 ..... 5  
EdSe 250 ..... 4  
EdPI 360 or EdPI 361 ..... 2  
EdSe 351 ..... 5  
Methods in major field..... 3-6  
EdPI 463-464 (EdPI 461 may be substituted for EdPI  
464 where appropriate) ..... 12  
EdPI 465 ..... 3  
EdSe 480 (after student teaching)..... 3

### General Education

All students in secondary academic or special fields in teacher education (except home economics education) must complete 45 hours of general education courses in order to be eligible for graduation with a BSED or teacher certification or both.

The breakdown of these general education requirements is as follows:

#### 1. Science and Mathematics

Each student is required to complete at least one course in science and one course in mathematics. Appropriate science courses are: astronomy, chemistry, physics, botany, zoology, physical science, geology and Psy 226, 312 and 314. Any course in the

mathematics department except 011, 032, 109A, 109B, 320 and 420 is acceptable for the mathematics requirement. Also, Psy 121 counts toward the mathematics requirement. Computer science courses do not satisfy this requirement. (Math course requirement applies only to freshman entering September, 1971, or thereafter. All others may complete this requirement by completing two science courses, two math courses or one science and one math course.)

2. Comparative Arts and/or Philosophy

Each student is required to complete at least two courses in this area. The two courses need not be in one field. Possibilities include any courses in the Philosophy Department; Comparative Arts Department; Hum 107, 108, 109, 307, 308 and 309; ThAr 370, 371, 372, 470, 471, 472, 473, 474, 475, 476 and 477; Art History Department; Art Department except for Art 360, 460, 461, 462; School of Music courses except for music education courses, music therapy courses, and the one- or two-hour participation courses.

3. Social Studies

Each student is required to complete at least two courses in social science. The two courses need not be in the same field. Psy 101, which is required, is included as one of the social science courses. Other possibilities include any course in anthropology, economics, economic education, history, government, sociology, social work, geography and psychology, EXCEPT Psy 275, 121, 266, 312 and 314.

4. English and/or Foreign Language

Each student is required to complete at least two courses in English and/or foreign language. The two courses need not be in the same field. InCo 103 is a specific requirement in this area and is counted as one of the two courses needed. (Students entering prior to September, 1971, may substitute InCo 101 for InCo 103). InCo 103 may be waived on the basis of one semester of speech in high school. If waived, the course does not count as hours toward graduation nor as a course in this area. Possibilities in this area include all English courses EXCEPT Eng 450A and 450B; any linguistics courses; any foreign language courses EXCEPT ML 410 and ML 445; Hum 107, 108, 109, 307, 308 and 309 (these humanities courses may NOT count toward the general education requirements in both the English and/or foreign language field and the comparative arts and/or philosophy field.)

If two courses in each of the above fields do not add up to a total of 45 hours, then a student must elect sufficient hours in one or a combination of the above areas to bring the total hours in general education to 45 hours.

If a student's major OR second teaching field is the same as one of the above areas, then ten hours of the major or minor may be counted toward the corresponding general education field as well as the major or minor. For example: If the student's major is English, then ten hours of English may count toward the total of 45 hours of general education and toward Field 4, above, which is English and/or Foreign Language.

No more than six hours of HPER activity

courses may be counted toward the degree and none count in general education.

## Major Requirements

### Art Education: 82

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach art, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional special field certificate in art which allows the holder to teach in grades kindergarten through 12, inclusive.

#### Methods Courses:

Art 461 Art Experiences in the Elementary School	3
Art 462 Teaching in the Secondary School	3

### Major Requirements: 82

A. Select at least 45 quarter hours of studio courses including at least one course from each of the following three areas:

1. Two-dimensional art

Possibilities include courses in studio foundations, painting, figure drawing, lithography, intaglio, prints, silk screen, weaving, drawing, photography and graphic design.

2. Three-dimensional art

Possibilities include courses in studio foundations, ceramics, sculpture, carving, welding, metals, casting, weaving, glass, relief prints and silk screen.

3. Graphic communications

Art 254 or 351

Note that although a course may be counted in more than one area, a single course may not be used to fulfill more than one requirement. For example, Art 101—Studio Foundation may be used to satisfy either Area 1—Two-Dimensional Art, or Area 2—Three-Dimensional Art but it cannot be used to fulfill both areas at the same time. Art education courses (Art 360, 460, 461, 462) do not count towards any of the above areas.

B. Select 27 quarter hours of art history and/or comparative arts.

Possibilities include any courses in the art history or comparative arts departments (except CA 303, 304, 305 and CA 321, 322, 323.)

C. Select at least ten quarter hours of electives in art and/or art history or comparative arts.

Possibilities include any courses taught in the School of Art (except Art 360, 460, 461, 462) and/or any courses taught in art history or comparative arts (except CA 303, 304, 305, 321, 322, 323). Students may take any combination of courses to fulfill this area except as noted above.

**Bookkeeping—Basic Business: 66**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach bookkeeping-basic business, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach bookkeeping-basic business and sales-communication in grades seven through 12, inclusive:

**Methods Courses:**

EdSe 470 Teaching of Bookkeeping-Basic Business	3
Acct 101 and 102-Managerial	8
Acct 303-Acct Prin and Proc	4
BusL 255, 356	8
Econ 101 and 102-Prin	8
Geog 332-Geography of Manufacturing	4
Jour 250-Adv Prin	5
Mkt 301	4
Mkt 458-Sales Mgt or	
Mkt 444-Consumer Behavior	4
Fin 325	4
Mgt 300-Mgt	4
Mgt 325	4
CS 252-Intro to Dig Comp or	
QM 200 and 430	5-8
Elective in business	8-4

**Communications Comprehensive—  
Option One (Speech Emphasis): 94**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach in communication with an emphasis in speech, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach English, speech, journalism, reading and an integrated communications course in grades seven through 12 inclusive.

**Methods Courses:**

InCo 421 Teaching Speech Communication I	3
InCo 422 Teaching Speech Communication II	2
1. Speech (41 hours)	
A. Fundamental Processes	
*InCo 101-Speech Fund	3
*InCo 445-Comm in Organ	4
And six quarter hours of elec selected from:	
InCo 107-Intro to Verbal Lang Behav	2
InCo 335-Bases of Speech Comm	3
InCo 104-Listening	2
InCo 433-Applie of Gen Semantics	4
InCo 448 Cross-cultural Comm	4
B. Theory and History of Speech	
*InCo 334-Intro to Comm Process	4
*InCo 353A, or B or C-Hist and Crit of Oratory	3

And nine quarter hours of elec selected from:	
InCo 217-Forensic Workshop	1-6
InCo 425-Directing the Foren Program	3
InCo 435-Theories of Argument	3
InCo 442-Comm and Persuasion	4
InCo 446-Comm and the Campaign	4
InCo 452-Psych of Speech	4
InCo 450-Intro to Canonical Rhetoric	3
InCo 458-Responsibilities and Freedom of Sp	4
InCo 460-Contemp Public Address	4
InCo 481-Measurement of Sp Comm	4
R-TV 300-Broadcasting and the Public	4
R-TV 441-Instruct Methods in Educ TV	4
ThAr 215A-Principles of Acting	3
ThAr 370 or 371 or 372 Theater Hist	3
ThAr 460-Directing I	3

**C. Forms of Speech**

*InCo 105 or R-TV 105 or Jour 105-Intro to Comm	4
*InCo 220-Oral Interp of Lit	3
And 8 hours selected from at least 3 of the 6 areas:	

**Platform Speaking**

InCo 103-Public Speaking	4
InCo 412-Advanced Public Spkg	4

**Discussion**

InCo 205-Group Discussion	4
InCo 210-Parliamentary Proc	2
InCo 404-Interviewing	3
InCo 405-Conference Leadership	4

**Debate**

InCo 215-Argumentation and Debate	4
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**Acting**

ThAr 415-Practicum in Acting	4
ThAr 441-Creative Dramatics	3

**Playdirecting**

ThAr 465-Practicum in Directing	1-4
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**Technical Theater**

ThAr 405-Practicum in Management	1-4
ThAr 434-Practicum in Production Design	1-4

**\*Required****2. English (30 hours)**

Freshman English	5
Eng 201, 202, 203	5
Eng 301, 302, 303, 304, 311, 312, 313, 314, 409, 411, 412, 413, 414	5
Eng 317, 321, 322, 417, 421, 422	5
Hum 107, 108, 109, 307, 308, 309, Eng 204, 205, 206, 306, 341, 441, or courses in foreign lit. in translation (e.g. ML 335-339)	5
Eng elec including any course from the list above not taken to meet the minimum requirement, or other Eng. courses	5

**3. Journalism (14 hours)**

Jour 231-Basic Newsriting	4
Jour 221-Graphics	5
OR	
Jour 331-Rept Contemp Issues	3
OR	
Jour 441-Magazine Feature Writing	4
Jour 333-Editing	3
Jour 484 or Jour 485	4

**4. Reading (9 hours)**

EdEl 411-Diagnosis and Treat of Read Disabilities	4
EdSe 420-Tchg Read in the Jr and Sr HS	5

## Communications

Comprehensive—Option Two  
(English Emphasis): 92

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach in the field of communications with an emphasis in English the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach English, speech, journalism, reading and an integrated communications course in grades seven through 12 inclusive.

*Methods Courses:*

Eng 450A-Teaching Language and Composition	3
Eng 450B-Teaching Literature	3
1. English (40 hours)	
Freshman English	5
Eng 201, 202, 203	5
Eng 301, 302, 303, 304, 311, 312, 313, 314, 409, 411, 412, 413, 414, 431	5
Eng 317, 321, 322, 417, 421, 422	5
Hum 107, 108, 109, 307, 308, 309, Eng 204, 205, 206, 306	5
Eng 341, 441 or courses in foreign literature in translation (e.g. ML 335-339)	5
Eng 308	5
Eng 307, 351, 352	5
Eng elec including any courses from the list above not taken to meet minimum requirement or other courses	5
2. Speech (29 hours)	
*InCo 101-Speech Fundamentals	3
*InCo 445-Comm in Organ Theory and Hist of Speech	4
*InCo 334-Intro to Comm Processes	4
*InCo 353A, or B, or C-Hist and Critic of Oratory	3
Forms of Speech	
*InCo 105 or R-TV 105 or Jour 105-Intro to Com	4
*InCo 220-Oral Inter of Lit	3
Eight hrs of elec selected from:	
InCo 103-Public Spkg	4
InCo 205-Group Discus	4
InCo 215-Argum and Debate	4
*Required	
3. Journalism (14 hours)	
Jour 231-Basic Newswriting	4
Jour 221-Graphics	5
OR	
Jour 331-Reporting Contemp Issues	3
OR	
Jour 441-Magazine Feature Writing	4
Jour 333-Editing	3
Jour 484 or 485	4
4. Reading (9 hours)	
EdEl 41I-Diagnosis and Treat of Read Disab	4
EdSe 420-Tchg Read in Jr and Sr HS	5

## Comprehensive Business Education: 80

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach business education, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach business education in grades seven through 12, inclusive:

*Methods Courses:*

EdSe 470 Teaching of Bookkeeping-Basic	3
A. Typewriting and Office Procedures—30 hrs.	
CS 252—Introduction to Digital Computer Programming for Business	5
OR	
QM 200 Quantitative Methods and QM 430 Quantitative Methods	8
Mgt 325 Communications Behavior in the Modern Organization	4

## Courses must be taken to fulfill each of the following areas:\*

A course in office procedures	3
A course in office machines	3
Courses in typing	6
Courses in shorthand	6
Sufficient electives in any one or combination of the above to bring total to 30 quarter hours.	
B. Business and Economics—40 hrs.	
Acct 101 Managerial Accounting	4
Acct 102 Managerial Accounting	4
Acct 303 Accounting Principles and Procedures	4
BusL 255 Law and Society	4
BusL 356 Law of Management Process	4
Econ 101 Principles	4
Econ 102 Principles	4
Mkt 301 Marketing Principles	4
Mgt 300 Management	4
Fin 325 Managerial Finance	4
C. Electives in Business and Related Areas—10 hrs.	
Select 10 quarter hours of electives from the following:	
Jour 250 Advertising Principles	5
Mkt 444 Consumer Behavior	4
Mkt 458 Sales Management	4
Geog 332 Geography of Manufacturing	4
Math 163A Introduction to Calculus	4
AND	
Math 163B Introduction to Calculus	4
Accounting courses	
Economics courses	
Business and industrial communications courses	

\*Ohio University does not offer courses in these areas except on the Chillicothe and Lancaster campuses. Students following this major must take these courses at the Chillicothe and Lancaster campuses or at another institution. Courses could be taken at a four-year accredited institution or at certain technical institutions. Any courses taken to fulfill these requirements should be approved by the Student Personnel Office in the College of Education to insure applicability towards certification.

## English Comprehensive: 67

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach English, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach English in grades seven through 12, inclusive.

*Methods Courses:*

Eng 450A Teaching Language and Composition	3
Eng 450B Teaching Literature	3
Freshman English	5
Eng 201 or H297-Interp Fict	5
OR	
Eng 202 or H298-Interp of Poetry	5
OR	
Eng 203 or H299-Interp of Drama	5
Eng 301 or 302 or 303 Shakespeare	5
Select one:	
Eng 307, 351, 352	5
Eng 308 Adv Comp	5
Eng 311 Early Engl Lit	5
OR	
Eng 312 Renais Eng Lit	5
Eng 313 Rest and Neo Lit	5
OR	
Eng 314 Rom and Vic Lit	5
Eng 321 Amer Lit to Civil War	5
OR	
Eng 322 Am Lit from Civil War	5
English elective beyond freshman level	5
Select one:	
Eng 409, 410, 411, 412, 413, 414, 417, 421, 422, 431, 441, 451, 453, 461, 462, 463, 470	5
EdSe 420 Tchg of Read in Jr and Sr HS	5
Select from areas of theater, speech, library science, linguistics, comp arts/phil	7
Select from Hum 107, 108, 109, or 307, 308, 309; Eng 204, 205, 206, 306, 341, 441; BSI 113, 211, 355, 357, 358, or courses in foreign lit in translation (e.g. ML 335-339)	5

## Family Life Education: 90

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach family life education, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach an integrated family-life education course in grades seven through 12, inclusive.

*Methods Courses:*

HEED 340 Teaching of Home Economics	3
Psychology: 9	
HECF 160 Intro to Child Develop	4
Psy 336 Soc Psych	5

## Biology: 7

Zool 345 Human Physio	4
HPER 204C Drug, Alcohol and Tob Educ	3
Health: 20	
HEFN 128 Intro to Nutrit	3
HPEC 350 Recreat	3
HPER 370 Com Hlth Prog	4
HPER 380 Safety Educ	4
HPEC 227 First Aid	3
HPEC 202 Pers and Com Health	4
Sociology: 4	
Select one of the following:	
Soc 320 Intro to Fam Socio	4
Soc 100 Social Problems	4
Marriage and the Family: 19	
HECF 270 Family Living	3
HECF 371 Family Develop	3
HECF 471 Family Life Educ	4
HECF 462 Read in Child Devp and/or Family Living	6
HECF 360 Human Sexuality	3
Household Management: 12	
Select 12 hrs from the following:	
HEFN 122 Food Science and Princ	4
HEHM 395 Home Mgmt	3
HEHM 180 Furnishing Today's Home	3
HEHM 384 Family Housing	3
HETC 317 Textiles and Dress Mod Liv	3
Consumer Economics: 7	
HEHM 390 Family Con Econ	3
EcEd 447 Econ Anal	4
Select 12 qtr hours from any one or combination of the above fields	12

General Speech—Option One  
(InCo Emphasis): 60

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach speech with an interpersonal communication emphasis, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach speech in grades seven through 12, inclusive.

*Methods Courses:*

InCo 421 Teaching Speech Communication I	3
InCo 422 Teaching Speech Communication II	2
1. Fundamental Processes (13 hours)	
*InCo 101 Speech Fund	3
*InCo 445 Comm in Organ	4
And 6 qtr hrs of elec selected from:	
InCo 104 Listening	2
InCo 107 Intro to Verbal Lang Behav	2
InCo 335 Bases of Sp Comm	3
InCo 433 Applic of Gen Semantics	4
InCo 448 Cross-cultural Comm	4
2. Theory and History of Speech (24 hours)	
*InCo 334 Intro to Comm Process	4
*InCo 353A, B or C Hist and Crit of Oratory	3
And 17 qtr hrs of elect from:	

InCo 217 Forensic Workshop	1-6
InCo 425 Directing the Forensics Program	3
InCo 435 Theories of Argument	3
InCo 442 Comm and Persuasion	4
InCo 446 Comm and the Campaign	4
InCo 450 Intro to Canonical Rhetoric	3
InCo 452 Psych of Speech	4
InCo 458 Respons and Freedom of Speech	4
InCo 460 Contemporary Public Address	4
InCo 481 Measurement of Speech Comm	4
R-TV 300 Broadcasting and the Public	4
R-TV 441 Instructional Methods in Educ TV	4
ThAr 215A Principles of Acting	3
ThAr 370 or 371 or 372 Theater History	3
ThAr 460 Directing I	3
3. Forms of Speech (23 hours)	
*InCo, R-TV, Jour 105 Intro to Com	4
*InCo 220 Oral Interp of Lit	3
And 16 qtr hrs of elec from 3 of the 6 areas:	
<i>Platform Speaking</i>	
InCo 103 Public Speaking	4
InCo 412 Advanced Public Speaking	4
<i>Discussion</i>	
InCo 205 Group Discussion	4
InCo 210 Parliamentary Proc	2
InCo 404 Interviewing	3
InCo 405 Conference Leadership	4
<i>Debate</i>	
InCo 215 Argumentation and Debate	4
<i>Acting</i>	
ThAr 415 Practicum in Acting	4
ThAr 441 Creative Dramatics	3
<i>Playdirecting</i>	
ThAr 465 Practicum in Directing	1-4
<i>Technical Theater</i>	
ThAr 405 Practicum in Mgt.	1-4
ThAr 434 Practicum in Prod Design	1-4

\*Required

## General Speech—Option Two (Theater Emphasis): 94

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach speech with a theater emphasis, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach speech in grades seven through 12, inclusive.

### Methods Courses:

InCo 421 Teaching Speech Communication I	3
InCo 422 Teaching Speech Communication II	2
1. Fundamental Process (15 hours)	
InCo 101 Fundamentals of Speech	3
InCo 335 Bases of Speech Communication	3
ThAr 114A, B, C Basic Performance Orientation	9
2. Theory and History (40 hours)	
InCo 334 Intro to Communication Process	4
ThAr 130A, B, C Technical Production	9

ThAr 215 or 215A Principles of Acting	3
ThAr 370, 371, 372 Theater History	9
ThAr 460 Directing I	3
Select one of the following courses:	
R-TV 300 Broadcasting and the Public	4
R-TV 441 Instructional Methods in Educ TV	4
Select two from the following courses (8 hours):	
ThAr 470 Greek Theater and Drama	4
ThAr 471 Roman and Medieval Theater	4
ThAr 472 Renaissance Theater and Drama	4
ThAr 473 Restoration and 18th Century Theater	4
ThAr 474 Baroque European Theater	4
ThAr 475 19th Century European Theater	4
ThAr 476 Contemporary Theater	4
ThAr 477 American Theater and Drama	4
3. Forms of Speech: (30 hours)	
InCo 225 Oral Interpretation	3
InCo 103 Public Speaking	4
InCo 215 Argumentation and Debate	4
ThAr 116 A, B, C Body Training	6
ThAr 330 A, B, C Stagecraft	9
ThAr 337 Basic Makeup	1
ThAr 461 Directing II	3
4. Speech/Theater for the Elementary Grades:	
Select 9 hrs from the following:	
ThAr 315 or 315A	3
ThAr 340 Dramatic Literature for Children	3
ThAr 440 Children's Theater	3
Theater Practicums	1-6

## History-Modular Social Studies Programs: 78

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach history and one of the other social science areas the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach history and another social studies field in which 30 hours have been completed, in grades seven through 12, inclusive.

### Methods Courses:

EdSe 479 Teaching of the Social Studies in Junior and Senior High Schools	3
A. History: 48	
Hist 101, 102, 103 West Civ.	12
Hist 211, 212, 213 U. S. Hist.	12
Select two courses for a minimum of six hours from each of the following fields:*	
European History	
U. S. History	
Other (African, Ancient, Asian, Latin American, Middle East)	
8 hrs of the above advanced history courses must be at the 300 level or above.	
*If necessary, select sufficient electives in history to bring total to 48 hrs.	
B. Select one of the following fields and complete at least 30 qtr hrs in that field:	

1. Government: 30
  - a. Govt 101 and 102
  - b. Choose one course from each of the following:
    1. Govt 331, 332, 333, 434A or B, 335, 341, 432, 438, 444, 445, 446, 447A or B, 448
    2. Govt 401, 402, 409, 413
    3. Govt 304, 306
    4. Govt 320, 323
    5. Govt 350, 351
    6. Choose one of the following:
      - Govt 405, 410, 415, 417, 418, 481, 485
  - c. Choose enough electives in government to bring the total number of hrs earned in that field to 30.
2. Economics: 30
  - a. Econ 101 and 102 (or 301 and 302)
  - b. Econ 303 and 304
  - c. Select sufficient hrs to complete 30 hrs of economics (may include EcEd 446).
3. Social Psychology: 30
  - a. Required courses:
    - Psy 304, 336, 333, 121, 226.
  - b. Select five (5) hrs from the following:
    - Psy 310, 311, 315, 376 or 490 Seminars in developmental or social psychology.
4. Geography: 30
  - a. Required courses:
    - Geog 101, 121, 130, 201, 260.
  - b. Select two (2) electives in regional geography so as to include one course in the western region (Geog 140, 142, 240, 241, 242, 340, 355 and 356) and one in the nonwestern region (Geog 141, 345, 351 and 352).
  - c. Select two (2) elective courses in upper level systematic geography.
5. Sociology and Anthropology: 30
  - a. Soc 101 or 302
  - b. Anth 270 or 370
  - c. Select sufficient elect in both fields to complete 30 hrs including 8 hrs at the 400 level.

## Industrial Arts

### Comprehensive: 100

A student who desires to be graduated from the College of Engineering and Technology with a major in industrial technology and wishes to obtain through Ohio University a four-year provisional high school certificate valid for teaching industrial arts in grades seven through 12, inclusive, follows the major as specified for the BSIT. Those who desire the BSIT degree with the teaching option should contact the chairman of the Department of Industrial Technology for further information.

All other students who desire to teach industrial arts must be enrolled in the College of Education and must complete the following program. The certificate for which this program prepares a student is a four-year provisional high school certificate which qualifies the holder to teach industrial arts in grades seven through 12, inclusive.

### Methods Courses:

INDT 470 Intern Teaching	3
IT 115 Metal Fabri	4
IT 216 Metal Mach	4
IT 220 Small Engrs	3
IT 244 Graphic Proc	3
IT 250 Wood Industry	5
IT 270 Rep Writing	3
IT 301 Ceramic Prod	3
IT 308 Plastics	3
IT 310 Metal Castg	3
IT 320 Hydraulic Controls	3
IT 332 Electronics	5
IT 361 Product Dsgn	2
IT 390 Materials	3
EG 101 and 102 Engineer Drawing	6
IT and EG technical electives	25
(concentrated in 2 fields may include 6 hrs of approved courses in engineering and architecture)	
Chemistry, physics and mathematics (minimum of one course in each field)	
	25

### Latin: 39-51

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach Latin, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach Latin in grades seven through 12, inclusive.

Each person selecting Latin as a major teaching field must have a minor or second teaching field. Requirements for all of the second teaching fields are available in the Student Personnel Services Office, Room 124, McCracken Hall.

### Methods Courses:

Lat 364 Teaching of High School Latin	3
Lat 101, 102, 103 Beginning Latin	12
Students entering with two years of high school Latin are excused from this sequence.	
Students entering with two (2) years of high school Latin must complete at least 39 hours of Latin numbered above 103, including:	
CLNG 401 The Life of the Romans	3
Lat 433 Advanced Latin Syntax	3
One other 400-level Latin course	
Students entering with three or four years of high school Latin will normally register for Lat 351, Latin Prose and Poetry—3 hours, and then must complete at least 30 hours more of Latin including:	
CLNG 401 The Life of the Romans	3
Lat 433 Advanced Latin Syntax	3
One other 400-level Latin course	

### Mathematics: 60

Regardless of the college of the University from which a student graduates if he or she wishes to be certified through



Ohio University to teach mathematics, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach mathematics in grades seven through 12, inclusive.

#### *Methods Courses:*

- Math 320 Teaching of Mathematics in the Secondary School . . . 5
- A. Select at least 50 quarter hours of mathematics as follows:
- 1. Math 263 ABC . . . . . 15
  - 2. Math 214 . . . . . 5
  - 3. Math 230 . . . . . 5
  - 4. One of the following courses in computer science:
    - 201, 253, 254 . . . . . 5
  - 5. Elect one Math 200 level or above . . . 5
  - 6. 15 quarter hours of mathematics at the jr.-sr. level excluding Math 320 . . . . . 15
- B. An additional 10 quarter hours are required and may be selected from any one or combinations of the following:
- 1. Mathematics at the 200 level or above excluding Math 320
  - 2. Computer science at the 200 level or above
  - 3. Ast 300, 301, 350
  - 4. CE 220, 321
  - 5. Phys 251-252
  - 6. Phil 320, 420, 421

### Modern Languages Comprehensive: 56-68

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach one of the modern foreign languages, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate to teach one of the modern foreign languages (French, German, Russian, Spanish) in grades seven through 12, inclusive.

Students who have completed one year or less of high school work in the language in which they are majoring should start with ML 111—Elementary Language—4 hours. Students who have completed two or three years of high school work in the language in which they are majoring should start with ML 211—Intermediate Language—4 hours. Students who have completed four or more years of high school work in the language in which they are majoring should start with ML 241—Literature and Interpretation—4 hours. Regardless of the level at which a

student starts the college language he or she must complete at least 56 quarter hours in that language beyond 113.

#### *Methods Courses:*

- ML 445 Teaching of Modern Foreign Languages . . . . . 3
- Lang 111, 112, 113 Basic . . . . . 12
- All students must have 56 hours above Lang 113.
- Lang 211, 212 and 241 Inter. . . . . 12
- Lang 341, 342 and 343 Adv Conv and Comp. . . 12
- Lang 348 or 349 Civ and Culture . . . . . 4
- Lang 355 and 356 Lit Readings . . . . . 8
- Lang 410 Lang Lab . . . . . 3
- Lang 437 Phonetics . . . . . 3
- Lang 439 or 441 Stylistics . . . . . 3
- Electives at 400 level or above . . . . . 9
- Select 3 hours from the following . . . . . 3
- Cultural Anthropology
  - Cult and Civ of Country
  - History of Country
  - Linguistics
- (Study Abroad Recommended)

### Music Education With Instrumental Emphasis: 108-114

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach instrumental music, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional special field certificate which qualifies the holder to teach music in grades kindergarten through 12, inclusive.

#### *Methods Courses:*

- Mus 468 General Music in the Junior High School . . . . . 3
- Applied Music: Second Instr-Piano or sufficient prof to pass Prof Test—See School of Music 6-12
- Major Performing Groups (Minimum one per quarter) . . . . . 11
- Mus 90 (to be taken each quarter) . . . . . 0
- Mus 101, 102, 103 Theory . . . . . 9
- Mus 201, 202, 203 Harmony . . . . . 9
- Mus 204 and 205 Dict and SS . . . . . 6
- Mus 206 Form and Anal . . . . . 3
- Mus 261 String Meth and Mat (3 qtr, 2 hr ea) . . . . . 6
- Mus 263 Wind and Perc Meth . . . . . 12
- Mus 304 Instrumentation . . . . . 3
- Mus 321, 322, 323 . . . . . 9
- Mus 363 Meth and Mat Inst . . . . . 3
- Mus 364 Sec Schl Voc . . . . . 3
- Mus 455 and 457 Cond . . . . . 6

### Music Education With Vocal Emphasis: 104-112

Regardless of the college of the University from which a student graduates, if

he or she wishes to be certified through Ohio University to teach vocal music, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional special field certificate which qualifies the holder to teach music in grades kindergarten through 12, inclusive.

### Methods Courses:

Mus 366 Teaching of Music in the Elementary Grades	3
Applied Music:	22
("Principal instrument" voice or piano)	
If major is piano then must take Mus 451, 452, 453-Accm	1-3
Secondary Instrument: (voice or piano sufficient to pass prof test-See School of Music)	6-12
Major Performing Groups (minimum one per quarter)	11
Mus 90 (to be taken each quarter)	0
Mus 101, 102, 103 Theory	9
Mus 201, 202, 203 Harmony	9
Mus 204 and 205 Diet and SS	6
Mus 206 Form and Anal	3
Mus 261 String Meth (2 qtr, 2 hr ea)	4
Mus 263 Wind and Perc (3 qtr, 2 hr ea)	6
Mus 321, 322, 323 Hist of Mus	9
Mus 455 and 456 Cond	6
Mus 364 and 365 Sec Schl Vocal Tech	6
Mus 367 Mat and Trends	3
Mus 468 Gen Mus in Jr HS	3

## Science Modular Program

The Science Modular Program has been constructed to allow those individuals who wish to teach science in high school to prepare in two science fields. There are four science fields: biology, chemistry, earth science and physics. Each student is required to complete the requirements for two science fields plus the tool course requirement.

There is one exception to the above statement. A student seeking a bachelor of science degree in either chemistry or physics and who desires to teach that science field in high school may be certified through Ohio University to teach either physics or chemistry (depending upon major) by completing the requirements in the major for the BS degree plus the general and professional education requirements for certification. The certificate which would be issued is a four-year provisional high school certificate which qualifies the holder to teach physics or chemistry, depending upon the major, in grades seven through 12, inclusive.

All students other than those seeking the BS degree in chemistry or physics must

complete the science modular program if they wish to be certified through Ohio University to teach science regardless of the college from which they graduate. The certificate for which the science modular program prepares a person is a four-year provisional high school certificate which allows the holder to teach two of the sciences (depending on the two fields chosen in the program) in grades seven through 12, inclusive.

Since there are four science fields (biology, chemistry, earth science and physics) and each student is to select a combination of two of these four fields, there are six possible combinations. On the following pages the six possible combinations and the tool-course requirements for each combination are listed. The requirements for each field are listed later in this material.

### Methods Courses:

Select one of the following courses depending upon your major interest.

Bot 368 Teaching of Biology	4
EdSe 472 Teaching of Earth Science	3
EdSe 478 Teaching of Physical Science	3

#### A. Possible combinations with required tools:

1. Biology-Physics: 99  
Biology—32  
Physics—31  
Tools—36 Chem 141, 142, 301, 302—16  
Math 263 A, B, C, 340—20  
Geol 101 and 102—8\*
2. Biology-Chemistry: 87  
Biology—32  
Chemistry—37  
Tools—18 Math 263A, B—10  
Phys 201, 202—8  
Phys 203 recommended  
Geol 101, 102—8\*
3. Biology-Earth Science: 91 (General Science Certification Automatic)  
Biology—32  
Earth Science—37  
Tools—22 Phys 201, 202—8  
Phys 203 recommended  
Chem 121, 122, 301, 302—14
4. Physics-Chemistry: 88  
Physics—31  
Chemistry—37  
Tools—20 Math 263A, B, C, 340—20  
Bot 101 or Zool 101, Bot 102—10\*  
Geol 101, 102—8\*
5. Physics-Earth Science: 101  
Physics—31  
Earth Science—37  
Tools—33 Chem 141, 142, 123—13  
Math 263A, B, C, 340—20  
Bot 101 or Zool 101, Bot 102—10\*
6. Chemistry-Earth Science: 97  
Chemistry—37  
Earth Science—37  
Tools—23 Math 263A, B—10  
Phys 201, 202—8

Phys 203 recommended  
Bot 101 or Zool 101—5  
Bot 102—5\*

\*Students wishing to add general science to their teaching certificate must also take these courses.

## B. Area and Course Requirements:

### 1. Biology: 32

Bot 101 or Zool 101—5  
Bot 102—5  
Zool 203—6

Select one course from each of the following four areas. Select your courses so that you have approximately one-half of these courses in botany and one-half in zoology.

#### a. Structure of Organisms

Bot 307 Biology of Algae and Mosses . . . . . 5  
Bot 308-Morphology of Vascular Plants . . . . . 6  
Bot 312-Plant Anatomy . . . . . 5  
Zool 301-Human Anatomy . . . . . 6  
Zool 303-Comparative Vertebrate  
Anatomy . . . . . 6  
Zool 408-Histology . . . . . 6  
Zool 435-General Entomology . . . . . 6  
Zool 441-Parasitology . . . . . 6

#### b. Regulation and Maintenance of Organisms

Bot 424-Plant Physiology . . . . . 6  
Bot 431-Cytology . . . . . 5  
Zool 325-General Genetics . . . . . 5  
Zool 345-Human Physiology . . . . . 4  
Zool 437-Medical Entomology . . . . . 4  
Zool 448-Cell Physiology . . . . . 4  
Zool 460-Animal Physiology . . . . . 5  
Zool 463-Cell Chemistry . . . . . 4  
Zool 473-Ethology . . . . . 6

#### c. Continuity and Variation in Organisms

Bot 248-Trees and Shrubs . . . . . 5  
Bot 309-The Ohio Flora . . . . . 5  
Bot 310-Biology of Fungi . . . . . 5  
Bot 420-Fresh-Water Algae . . . . . 5  
Zool 442-Helminthology . . . . . 6  
Zool 450-Principles of Endocrinology . . . . . 4  
Zool 474-Mammalogy . . . . . 4  
Zool 479-Evolution . . . . . 4

#### d. Diversity and Interrelationships of Organisms

Bot 247-Vegetation of North America . . . . . 4  
Bot 311-Biology and Human Affairs . . . . . 3  
Bot 425-Ecology . . . . . 5  
Zool H390-Biology and the Future of  
Man . . . . . 5  
Zool 475-Animal Ecology . . . . . 3  
Zool 476-Ecology Lab . . . . . 2  
Zool 477-Population Biology . . . . . 4

### 2. Chemistry: 37

Chem 141, 142, 143-General  
Chem 301 and 302-Organic  
OR  
Chem 305, 306, 307  
Chem 303 and 304-Org Lab  
OR  
Chem 308 and 309  
Chem 325 or 484 and 485  
Chem 351-Physical Chem  
Chem 476-Mod. Inorganic

### 3. Earth Science: 37

Geog 311-Meteorology  
Astr 300-Elem Astron  
Geol 101, 102, 103-Elem of Geol  
Select one course from each of the following four areas:  
a. Geol 310-Rocks and Min

b. Geol 330 or 331-Geomorph  
c. Geol 356 or 340-Paleon  
d. Geol 211-Oceanography

### 4. Physics: 31

Select one of the following sequences:

a. 201, 202, 203-Introduction to Physics  
(4, 4, 4) . . . . . 12  
305-Intermediate Physics . . . . . 3  
272-Electronics Laboratory . . . . . 2  
316-Contemporary Physics for Engineers . . . 3  
371-Intermediate Laboratory . . . . . 2  
22

Physics electives: 9 hrs from 300- or 400-level courses in consultation with an advisor.

b. 251, 252, 253-General Physics (5, 5, 5) . . . 15  
272-Electronics Laboratory . . . . . 2  
316-Contemporary Physics for Engineers . . . 3  
371-Intermediate Laboratory . . . . . 2  
22

Physics electives: 9 hrs from 300- or 400-level courses in consultation with an advisor.

## Social Psychology: 45

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach social psychology, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach social psychology in grades seven through 12, inclusive.

Each person selecting social psychology as a major teaching field must have a second teaching field selected from biological science, general science, English, history, mathematics, political science, sociology, chemistry, physics, health, physical education or industrial arts.

Social psychology is an experimental program and because of limited student placements only a few persons will be allowed to enter this program each year. Definite screening procedures have been established and you can gain more information by contacting the Student Personnel Services Office, Room 124, McCracken Hall.

### Methods Courses:

EdSe 479-Teaching of the Social Sciences in  
Jr. and Sr. High School . . . . . 3  
Psy 121-Statistics . . . . . 5  
Psy 226-Experimental . . . . . 5  
Psy 241-Behavioral Measurement . . . . . 5  
Psy 336-Social . . . . . 5  
Psy 304-Human Learning . . . . . 5  
Psy 333-Personality . . . . . 5

Select 5 hours from the following: Psy 307, 311, 312, 314.

Select ten hours from the following courses:

Psy 332-Abnormal	5
Psy 310-Motivation	5
Psy 315-Individual Diff	5
Psy 351-Intro to Clinical	5
Psy 376-Except. Child	5
Psy 173-Child and Adol	5
Seminars in social or developmental psychology.	

Social Studies

Comprehensive: 90

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach under the social studies comprehensive, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach history, an integrated social studies course and any other component area in which at least 18 hours have been completed in grades seven through 12, inclusive.

Each student is to complete the required 36 hours of history and then complete 18 hours in one (or more if desired) of the other five fields (government, economics, geography, sociology and anthropology) and eight hours in each of the remaining fields. For example, a student would complete the required 36 hours of history, the 18 hours required in government and the required eight hours in each of the fields of economics, geography, sociology and anthropology. In this example, the certificate issued would be valid for teaching history, an integrated course in social studies and government.

Methods Courses:

EdSe 479-Teaching of the Social Studies in Jr. and Sr. High School	3
A. History: 36	
1. Select two of the following:	
Hist 101, 102, 103-West Civ	8
2. Select two of the following:	
Hist 211, 212, 213-U. S. Hist	8
3. Select two courses for a minimum of 6 hrs of either U. S. or Modern European history at 300 level or above (Ohio History recommended)	
4. Select two courses for a minimum of 6 hrs of non-U. S., non-Modern European history	
5. Select sufficient electives in history at the 300 level or above to bring total to 36 hrs.	
B. Select a minimum of 18 qtr hrs in ONE of the following fields AND a minimum of 8 qtr hrs in each of the other fields:	
1. Government:	
Govt 101* and 102*-Am Nat'l	
Select any 10 add'l qtr hrs to fulfill 18 hr fld	

2. Economics  
Econ 101\* and 102\* or 301\* and 302\*  
Elect any 10 additional qtr hrs to fulfill 18 hr field (may include EcEd 446)
  3. Geography:  
Geog 101\*, 121\*  
Select one elective in regional geography (Geog 140, 141, 142, 240, 241, 242, 340, 345, 351, 352, 355, 356) and one elective in upper level systematic geography and any needed electives.
  4. Sociology:  
Soc 101\* or 302\*  
Soc elec including one course at the 400 level to complete 18 hr fld (select one course to complete 8 hr fld)\*
  5. Anthropology:  
Anth 270\* or 370\*  
Anth elec including one course at the 400 level to complete 18 hr fld (select one course to complete 8 hr fld)\*
- C. Select electives in any one or combination of the above flds to bring total qtr hrs to 90.

\*Courses required in 8 qtr hr minimum choice.

SPECIAL EDUCATION PROGRAMS

Two professional preparation programs are available to prospective teachers of exceptional children. These programs are for teachers of (1) educable mentally retarded children and children with learning and behavior disorders and (2) speech and hearing therapy.

Learning Disabilities and Educable Mental Retardation

General Education Requirements

Humanities	8
Eight hours of humanities are required. Possible courses include any combination of the following: comparative arts, art history, Greek, Latin, great books (Hum 107, 108, 109, 307, 308 and 309), philosophy, art (except for Art 360, 460, 461, 462), music (except for music education and music therapy courses. No more than three one-hour participation courses would be acceptable), ThAr 370, 371, 372, 470, 471, 472, 473, 474, 475, 476 and 477.	
Natural Sciences	8
Eight hours of natural sciences are required. Possible courses include any combination of the following: botany, zoology, physics, geology, chemistry or physical world. One of the courses taken must contain a laboratory component.	
Social Sciences	8
Eight hours of social sciences are required. Possible courses include the following: anthropology, economics, economic education, geography, government, history, sociology or social welfare.	

Psychology	8
Eight hours of electives in psychology are required. The following are recommended: Psy 121, 131, 241, 304, 310, 312, 315, 333 and 336. (EdGs 410 may be substituted for one psychology course.)	
InCo 101 or 103	3-4
This course may be waived if one semester of speech has been completed in high school.	
Psy 101 General Psychology	5
English One freshman level course	5
Speech and Hearing Therapy	3-4
HSS 108 Introduction to Speech Disorders or HSS 336 Speech & Hearing Disorders in the Public Schools	
Math 120	5
Math 120 is recommended; however, any mathematics course(s) numbered above 120 equaling five hours would be acceptable.	
Music	
Mus 160 Music Fundamentals	3
Mus 161 Music for the classroom teacher	3
Art 360 Art for the elementary teacher or two of the following courses	6
ThAr 441 Creative Dramatics	3
IndT 391 Elem. Industrial Arts	2
IndT 109 Crafts	2
Mus 281 Social & Rec Inst & Materials	3
ThAr 340 Dramatic Lit for Children	3
ThAr 440 Children's Theater	3
HPER 202 Personal and Community Health	4
HPER 250 Recreation Leadership	3-5
Or HPER 333-Theory of Adapted Activities; HPER 435-Recreation and Physical Education for the Mentally Retarded and Learning Disabled; EdSp 435-Recreation and Physical Education for the Mentally Retarded and Learning Disabled.	

### Minor Area of Concentration

Students in special education are required to complete a 20-hour area of concentration in *one* related area outside of the College of Education, but including the schools of home economics and physical education.

Common minors are psychology, sociology, speech pathology, social work, natural science and math.

Students may count courses taken to complete the general education requirements in the humanities, natural sciences, social sciences and psychology, excluding Psy 101, toward fulfillment of the minor area of concentration.

Combination of several areas is not acceptable except in the natural sciences.

### Related Professional Requirements

EdEl 310 The Teaching of Reading and Language Arts in the Elementary School	6
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EdEl 460 Child and the Curriculum	4
EdAV 480 Audio-Visual Methods & Materials	4

## Major Requirements

### Block I

EdSp 271 Intro to Educ. of Ex. Children	3
EdEl 200 Studies of Children	4

### Block II

EdSp 272 Intro to Educ of Mentally Retarded	3
EdSp 373 Curriculum Development for Handicapped Children	3
EdSp 470 Classroom Man of Prob Children	3
EdSp 490 Studies in Special Education	2
EdCI 275 The Learner & Learning Process	5

### Block III

EdSp 374 Teaching Language Arts to the Mentally Retarded	4
EdSp 375 Social Studies & Science for the Mentally Retarded	4
EdSp 377 Voc Educ for the Handicapped	3
EdSp 474 Intro to Learning Disabilities	4
EdSp 490 Studies in Special Education	2

### Block IV

EdSp 376 Mathematics for the Men Retarded	2
EdSp 476 Teaching of Learning Disabled	4
EdSp 477 Problems of Adj for Handicapped	3
EdEl 411 Diagnosis and Treatment of Reading Disabilities	4
EdSp 490 Studies in Special Education	3
The courses listed in each block must be taken concurrently. Block II, III, IV are considered a full quarter of work.	

## Professional Laboratory Experience

EdPI 360 or 361 Field Exp or Field Service	2
Field experience is a course in which a student spends nine days observing and participating in a special education classroom in a school of his or her choice in September, prior to the start of the junior year in college. Once the University commences there is only one evening meeting to attend. A student must register for this course as for any other course and must sign up for it in the Student Teaching Office, Room 129, McCracken, in May prior to the September when it is to be done. Anyone interested in EdPI 361-Field Service in Education rather than field experience should contact the Student Teaching Office for information.	
EdPI 461 and 462 Student Teaching 6 hrs each	12
EdPI 465 Student Teaching Seminar	3
These three courses are taken concurrently in one quarter and constitute the student teaching requirement. A person should make an application for student teaching by December 1 of the year prior to the year in which student teaching is to be taken. For example, anyone doing student teaching during any of the three quarters of the school year 1976-1977 should apply for student teaching by December 1, 1975. For further information about student teaching, contact the Student Teaching Office. Students must complete Block IV before entering student teaching.	

## Speech and Hearing Therapy

### General Education Requirements

InCo 220 Oral Interpretation of Literature	3
OR	
InCo 115 Argumentation and Debate	3

Select 27 quarter hours from the following areas to include at least one course from each of the four areas.

1. Science and/or Mathematics—Courses to be selected from: astronomy, botany, zoology, chemistry, physics, physical science, geology or any course in the Mathematics Department EXCEPT 011, 032, 109A, 109B, 320, and 420. Psy 121 is also considered a math course.
2. Comparative Arts and/or Philosophy—Possibilities include any courses in the Philosophy Department; Comparative Arts Department; Hum 107, 108, 109, 307, 308, 309; ThAr 370, 371, 372, 470, 471, 472, 473, 474, 475, 476, 477; Art History Department; Art Department EXCEPT for Art 360, 460, 461, 462; School of Music courses EXCEPT for music education courses and music therapy courses.
3. Social Science—Possibilities include anthropology, economics, geography, government, history, sociology or social welfare.
4. English and/or Foreign Language—Ling 270 is required. Other possibilities include all English courses EXCEPT Eng 450A and 450B; any foreign language courses EXCEPT ML 410 and ML 445; Hum 107, 108, 109, 307, 308, 309 (these humanities courses may not count towards the general education requirements in both the English and/or foreign language fields and the comparative arts and/or philosophy field).

If one course in each of the above fields does not add up to a total of 27 quarter hours, then a student must elect sufficient hours in one or a combination of the above areas to bring the total hours in general education to 27 quarter hours.

#### Psychology:

Psy 101-General Psychology	5
Psy 131-Psychology of Adjustment	4
EdEl 200-Studies of Children	4
OR	
HECF 160-Intro to Child Development	4
OR	
Psy 173-Childhood Adolesc Psy	5
Psy 332-Motivation	5
OR	
Psy 333-Psy of Personality	5
OR	
EdSp 272-Introduction to Education of Ment Ret Children and Youth	3
Psy 310-Motivation	5
OR	
Ling 350-Introduction to Gen Linguistics	5
OR	
Psy 307-Psycholinguistics	4
OR	
EdEl 400-Advanced Studies of Children	3
OR	
Psy 490A-Z	

### Professional Education

EdCI 275-Learning Processes in Classroom	5
OR	
Psy 275-Educational Psychology	5
EdSp 271-Intro to Edu of Exception Children and Youth	3
OR	
Psy 376-Psychology of Exception Children	5
EdSp 474-Intro to Learning Disabilities	4
EdPI 360 or 361-Field Exp in Elem or Sec Schools or Field Serv in Education	2
HSS 443-School and Clinical Program	4

Field experience is a course in which a student spends nine days observing and participating with a special therapist in a school of his or her choice in September prior to the start of the University. This should be done the September prior to the start of the junior year in college. Once the University commences, there is only one evening meeting to attend. A student must register for this course as for any other course and must also sign up for it in the Student Teaching Office, Room 129, McCracken Hall, in May prior to the September when it is to be done. Anyone interested in EdPI 361-Field Service in Education rather than field experience should contact the Student Teaching Office.

EdPI 461 and 462-Student Teaching	6+6
EdPI 465-Student Teaching Seminar	3
OR	
HSS 437-Speech and Hearing Therapy in the Public Schools	2

The last three courses are taken concurrently in one quarter and constitute the required student-teaching requirement. A person should make an application for student teaching by December 1 of the year prior to the year in which student teaching is to be taken. For example, anyone doing student teaching during any of the three quarters of the school year 1976-77 should apply for student teaching by December 1, 1975. For further information about student teaching, contact the Student Teaching Office in McCracken Hall.

### Major Requirements

HSS 107-Voice and Articulation	2
HSS 108-Introduction to Speech Disorders	3
HSS 309-Phonetics	3
HSS 310-Language Development	5
HSS 313-Speech and Hearing Mech. I	3
HSS 314-Articulatory and Auditory Mechanisms	3-4
HSS 345-Social Dialects	4
HSS 350-Speech Sciences	3
HSS 351-Lab Methods in Speech Sciences	3-4

HSS 370-Basic Audio	3
HSS 371 Auditory Rehabilitation	3-4
HSS 415-Stuttering	5
HSS 418-Disorders of Articulation	5
HSS 419-Disorders of Voice	4
HSS 422-Diag of Proc in Speech Pathology	3
HSS 424-Neuro of Speech and Language	3
HSS 240A, B-Soph Practicum (cont)	2+1
HSS 341A, B-Junior Practicum (cont)	1+2
HSS 442A & 442B-Practicum	1+1
HSS 444-Dis of Language	4
HSS 472-Audi Disorders in Children	3-4
HSS 479-Basic Manual Communication	1

## Ohio University Affiliated Center For Human Development

The Ohio University Affiliated Center for Human Development is an interdisciplinary center which provides opportunities to students for training, service and research relevant to problems of individuals with special needs.

Staff includes the following disciplines: special education, psychology, social work, nursing, physical therapy, occupational therapy, speech and hearing therapy, language development, parent and family counseling.

Since the center employs a transdisciplinary model for service delivery, students have opportunities to observe and participate in assessment, prescriptive programming, intervention, family counseling, follow-along services and personal advocacy.

This mechanism for cooperative training, service and research within the University adds an essential interdisciplinary extension of a student's instruction and helps to overcome the fragmentation caused by specialization.

Credit is given for practicum work at the center. Ohio University is one of 39 such University Affiliated Centers in the nation.

## STUDENT TEACHING

Successful student teaching represents the culmination of the program of professional preparation; it is a requirement for the bachelor of science in education degree. No candidate will be considered for the degree, or for recommendation for a teaching certificate, who has not completed, under the supervision of Ohio University, at least 12 quarter hours of observation, participation and student teaching.

## Application

It is the responsibility of the student to enter an application for student teaching in the office of the Director of Student Teaching, not later than December 1 preceding the academic year in which a student teaching assignment is desired.

## Schedule and Facilities

Students experience the complete range of the teacher's activities in full-time student teaching assignments for one quarter. Each student must plan carefully during the first three years of college to provide for a completely free quarter to engage in full-time student teaching. Majors in elementary education will follow a plan providing for student teaching in the last quarter of the junior year or the first or second quarter of the senior year. Majors in secondary academic areas and special fields will normally be assigned to student teaching during one of the quarters of the senior year.

The assignment of each student to a school is the responsibility and prerogative of the director of field experience. Students will be assigned to one of our existing centers which are in the following areas: Belmont County, Chillicothe, Lancaster, Portsmouth, Zanesville, greater Cleveland and Athens.

Students must secure their own housing and provide their own transportation to their assignments. Privately owned cars will be needed except by students assigned in metropolitan centers where public transportation is available. Students should not make definite plans to live in Athens during the student-teaching quarter since only a small percentage of those expressing a preference for the Athens area (commuting radius 40-55 miles) can be accommodated. The University assumes no responsibility for the transportation of students.

## Prerequisites for Student Teaching

Possible changes in prerequisites due to program revision may be secured in Room 129 McCracken Hall.

General prerequisites:

1. Residence: Completion of at least two quarters (30 quarter hours) of residence work.

2. Completion of at least 120 quarter hours of course credit in elementary and 135 quarter hours in secondary education and special education.
3. Completion of field experience, EdPI 360, or by special permission, EdPI 361. These experiences will be completed in September or during the summer prior to the student's junior year and should be arranged with the Director of Student Teaching in the spring quarter of the sophomore year.
4. Scholastic average: The student must have a point-hour ratio of 2.0 (C) on all hours attempted.
5. Admission to junior standing in teacher education at least one full quarter prior to student teaching.

Special prerequisites for student teaching in elementary education:

1. 2.25 cumulative point-hour ratio on all courses which must be completed in the following group: EdEI 200, 310, 330, 340, 350; Art 360; Mus 161, and EdCI 275 or Psy 275.
2. Completion of all courses required (prior to the designated student teaching quarter) as indicated on the student's planned program outline (A, B or C).
3. For kindergarten certification EdEI 304 and 305 must be completed prior to student teaching.

Special prerequisite for student teaching for special education majors:

1. Completion of Blocks I, II, III and IV in the special education program and attaining a 2.25 cumulative average therein.
2. Speech and hearing therapy majors must complete EdCI 275 or Psy 275, EdSp 271 or Psy 376, and HSS 443, obtaining a cumulative average of 2.25.

Special prerequisites for student teaching in secondary academic and special subjects:

1. Completion of EdCI 275 or Psy 275, EdSe 250, EdSe 351 and a methods course in the major teaching field, attaining a cumulative point-hour ratio of 2.25.
2. Students preparing to teach in one field must complete a teacher education major.
3. Completion of a major portion (at least three-fourths) of the work in

each of the teaching fields in which the student wishes to be certified. A cumulative point-hour ratio of 2.25 must be attained in the principal teaching field. An average of at least a 2.0 must be achieved in the second teaching field and in each principal component of the comprehensive majors. Transfer students must complete at Ohio University at least one-fourth of the preparation in the principal teaching field.

4. Completion of the general education requirements for certification in accordance with a pattern adopted by the University, consistent with the state teacher certification laws and regulations.

## TEACHING CERTIFICATES

A student who plans to teach in Ohio makes application for a teaching certificate at the time of application for graduation.

Applications may be obtained from the Student Personnel Services Office, McCracken Hall, Room 124. The teaching certificate is issued by the State Department of Education and qualifies the student to teach the subjects indicated on the certificate.

Completion of requirements for graduation and of the professional courses required for certification does not insure that the individual will be recommended for certification. Instructors in various courses, and especially in courses in education and student teaching, will attempt to evaluate a student's fitness for the teaching profession in ways other than observation of academic performance in the classroom. Any reports of limitations which might tend to impair the individual's usefulness as a teacher in the public schools will be made a part of the student's record. When the student makes application for certification this record will be examined and the question of his or her fitness for teaching will be given further consideration.

Students who are not planning to teach in Ohio should inform themselves concerning the requirements specified by the department of education of the states in which they expect to teach.

## Major Field of Specialization

The level of preparation in the major



area of specialization must correspond with the outline provided in the preceding pages, even though these requirements in many instances exceed those shown in the state certification regulations.

## Second Teaching Field

The level of preparation in the second certifiable field must equal or exceed requirements shown in the regulations of the Division of Teacher Education and Certification of the State Department of Education. Curriculum guides for minors are available in the Student Personnel Services Office, McCracken Hall, Room 124. The following minors have been approved:

- Biological science
- Bookkeeping-basic business
- Chemistry
- Earth science
- Economics
- Educational media
- English
- General science
- Geography
- Government
- Health education
- History
- Industrial arts
- Journalism
- Latin
- Mathematics
- Physics
- Physical education
- Social psychology
- Sociology and anthropology
- Speech

Any secondary, special field, elementary or special education certificate can be validated to teach the following areas:

- Data processing
- Driver education
- Reading

Requirements for these validation areas may be obtained in the Student Personnel Services Office, McCracken Hall, Room 124.

## OTHER PROGRAMS AND SERVICES

### Center for Educational Research and Service

The Center for Educational Research and Service is a division of the College of

Education which is designed to make available the resources of the College of Education and of the University to educational workers — teachers, administrators and supervisors, boards of education and the public communities served by Ohio University.

The center's chief functions are: (1) to provide consultant services in such areas as curriculum planning, use of community resources, economic education, guidance programs, school-community relations, reading, testing and supervisory and administrative problems; (2) to conduct school surveys of educational programs and curricula, school building and site needs and organization of school districts; (3) to assist in the solution of professional problems through off-campus and on-campus workshops; (4) to promote conferences on vital problems confronting public education; (5) to publish those studies and reports which will aid in solving educational problems, and to distribute such publications; (6) to assist schools with the organization or revision of programs of reading (especially for exceptional children), guidance and testing, and (7) to encourage cooperative attack by teachers, administrators, boards of education and the public toward solution of educational needs.

## Placement

The Placement and Internship Service, located in Lindley Hall, offers assistance to undergraduate and graduate students and alumni of the University who are seeking educational positions.

Information concerning available teaching and administrative positions in the public schools, as well as openings in education, student personnel, home economics, counselor education, industrial arts and physical education departments of colleges and universities of most states and many foreign countries is disseminated through the bureau.

## SCHOOL OF HEALTH, PHYSICAL EDUCATION AND RECREATION

James A. Lavery, *Director*

The School of Health, Physical Education and Recreation has five curricula as indicated below:

Teacher Certification

- 1. Health Education
- 2. Physical Education-Men
- 3. Physical Education-Women

Noncertification Programs

- 1. Community Health Services
- 2. Recreation

Minor curricula are also available in health education, physical education (men/women), athletic training, physical therapy and recreation.

Upon satisfactory completion of the requirements in any of the five programs in the school, students may apply for the bachelor of science in education degree.

The school also offers two programs of graduate study — physical education and sports administration. Each leads to a master's degree in education.

TEACHING CERTIFICATION CURRICULA

Health Education

A major in health education prepares students for teaching in the secondary schools and for positions of health educators in community health agencies.

General education and professional requirements are the same as those for secondary education as found in the College of Education section of the catalog. In addition, the methods course HPER 369, Teaching of Health, must be completed in order to meet the certification standards.

Major Requirements

Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
HEFN 128 Introduction to Nutrition	3
HECF 360 Human Sexuality	3
HECF 471 Family Living Education	4
Soc 100 Social Problems	4
HPER 202 Personal and Community Health	4
HPER 227 First Aid	3
HPER 370 Community Health	3
HPER 380 Safety Education	4
HPER 333 Theory of Adapted	3
HPER 204 Drug, Alcohol and Tobacco Edu	3
HPER 409 Test and Measurements	4
HPER 495 School Health Problems (Org. and Ad. in H. ED)	5

Physical Education

A major in physical education prepares men and women for the following positions: teachers of physical education at the elementary and secondary school levels, athletic coaching and related recreation careers.

General education and professional requirements are the same as those for secondary education as found in the *School of Curriculum and Instruction* section of the catalog. In addition, the following methods class must be completed in order to meet the K-12 state certification requirements.

HPER 280M (Men)	3
HPER 330W (Women)	3

Physical Education—Men

A psycho-motor phase complements courses pertaining to the theories and behavioral competencies on teaching physical education at the elementary and secondary levels.

Psycho-Motor Requirements

HPER 267M or 218 or 220 Swimming	2
HPER 322M Gymnastics	2
HPER 115C Rhythmics	2
HPER 290C Sports Officiating	2
Successfully complete a minimum of 12 of 46 skills classes.	
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
HPER 227 First Aid	3
HPER 234 Field Experience I	1-3
HPER 252 Kinesiology	4
HPER 300 Elementary P.E. I	3
HPER 301 Elementary P.E. II	3
HPER 302 Motor Learning	4
HPER 333 Theory of Adapted P.E.	3
HPER 334 Field Experience II	3
HPER 404 History and Principles of P.E.	5
HPER 406 Organization and Administration	5
HPER 409 Test and Measurements	4
HPER 495 School Health Problems	5

Physical Education—Women

A woman may select one of the following plans:

**Plan A.** Kindergarten through 12th grade certification with special emphasis in teaching physical education at the elementary school level.

**Plan B.** Kindergarten through 12th grade certification with special emphasis in teaching physical education at the secondary level.

## Major Requirements

Plan A: (elementary emphasis)	
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
HPER 106C Analysis of Movement	3
HPER 107C Modern Dance I	2
OR	
HPER 108C Modern Dance II	2
HPER 115C Rhythmic Activities	2
HPER 222W Tumbling and Mod Gymnastics	2
HPER 225W Artistic Gymnastics	2
HPER 227C First Aid	3
HPER 234 Field Experience I	1-3
HPER 252C Kinesiology	4
HPER 275C Elem School Rhythm and Dance	3
HPER 300C Elementary P.E. I	3
HPER 301C Elementary P.E. II	3
HPER 302C Motor Learning	4
HPER 333C Theory of Adapted P.E.	3
HPER 334C Field Experience II	3
HPER 404C History and Prin of Phys Edu	4
HPER 406C Org. & Admin	5
HPER 409C Tests & Measurements	4
HPER 495C School Health Problems	5
Select one of the following courses:	
HPER 103W Swimming I	2
HPER 104W Swimming II	2
HPER 218C Life Saving	2
HPER 220C Water Safety Instructors	2
Select one of the following courses:	
HPER 114W Archery-golf	2
HPER 221W Tennis-Badminton	2
HPER 223W Track and Field	2
HPER 262W Field Hockey-Soccer	2
HPER 263W Basketball-Volleyball	2
HPER 264W Softball-Archery	2
Plan B: (secondary emphasis)	
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
HPER 106C Analysis of Movement	3
HPER 115C Rhythmic Activities	2
HPER 234C Field Experience I	1-3
HPER 302C Motor Learning	4
HPER 333C Theory of Adapted	3
HPER 334C Field Experience II	3
HPER 404C History and Principles of P.E.	4
HPER 406W Org. and Admin	5
HPER 409C Tests and Measurements	4
HPER 495C School Health Problems	5
HPER 227C First Aid	3
Select three of the following courses:	
HPER 371W Theory & Prac. of Team Sports	3
HPER 372W Theory & Prac. of Ind. Sports	3
HPER 373W Theory & Prac. of Aquatics	3
HPER 374W Theory & Prac. of Dance	3
HPER 375W Theory & Prac. of Gymnastics	3
Select one course from each area and elect three more. (Minimum—16 hrs.)	
A. TEAM SPORTS:	
HPER 262W Field Hockey-Soccer	2
HPER 263W Basketball-Volleyball	2
HPER 264W Softball-Archery	2
B. INDIVIDUAL SPORTS:	
HPER 141W Archery-Golf	2
HPER 221W Tennis-Badminton	2
HPER 223W Track and Field	2
C. AQUATICS:	
HPER 103W Swimming I	2

HPER 104W Swimming II	2
HPER 218C Life Saving	2
HPER 220C Water Safety Instructor	2
D. GYMNASTICS:	
HPER 222W Tumbling & Mod. Gymn.	2
HPER 225W Artistic Gymnastics	2
E. DANCE:	
HPER 107C Modern Dance I	2
HPER 108C Modern Dance II	2
HPER 116C Social Forms of Dance	2
HPER 337C Dance Composition	2

## NONCERTIFICATION CURRICULA

### Community Health Services

The program provides students with background courses and field experiences which qualify them for service in community health agencies. A bachelor of science in education degree will be awarded to those students completing the prescribed course of study.

### General Requirements

InCo 103 Public Speaking	5
English (one course)	5
Philosophy/Comparative Arts (two courses)	6
InCo 105 or R-TV 105 or	
Jour 105 Intro to Mass Communication	4
EdAV 481 Prod. of Instructional Material	3
EdGS 440 Foundations in Group Dynamics	4
OR	
InCo 205 Techniques of Group Discussion	4

### Social Sciences

Soc 101 Introduction to Sociology	5
Psy 101 General Psychology	5
Econ 101 Principles of Economics	4
Econ 102 Principles of Economics	4
Soc 100 Social Problems	4
Soc 351 Elementary Research Tech.	4
SW 101 Introduction to Social Work	3
SW 390 Social Security System	4
SW 391 American Social Welfare Ins.	4

### Biological Sciences

Bot or Zool 101 General Biology	5
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
Micr 310 Elementary Microbiology	4

### Health Education

EdCI 275 Learn. Proc. in Classroom	5
HEFN 128 Introduction to Nutrition	3
HECF 360 Human Sexuality	3
HECF 471 Family Living Education	4
HPER 202 Personal and Community Health	4
HPER 204 Drugs, Alcohol and Tobacco	3

HPER 227 First Aid	3
HPER 234 Field Experience I	1-3
HPER 360 Environment H & S Epidemiology	5
HPER 370 Community Health	4
HPER 380 Safety Education	4
HPER 464 Community Health Practicum	15
HPER 495 School Health Problems	5

## Recreation

Major and minor curricula are offered for prospective recreation specialists. Upon successful completion of the requirements students who major in recreation may apply for the bachelor of science in education degree. A degree in recreation will not lead to a teaching certificate in the State of Ohio.

The coursework is designed to prepare students in the basic recreation core and allows them to concentrate in recreation therapy, recreation management or outdoor education and camping.

The major curriculum prepares both men and women to assume positions in city recreation and park departments, state and federal government agencies, youth service agencies, institutional recreation, industrial agencies, religious organizations, camping, commercial recreation and administration.

The minor in recreation studies is designed to fit the needs of part-time employees in the field of recreation. The curricula will prepare the students for supervision in schools and community recreation programs, summer playgrounds and camping activities.

## Major Requirements

### I. General Education

(Required 33-35 hrs.)

Zool 101 Principles of Biology	5
InCo 103 Public Speaking	4
Engl One Course	5
Com Arts and/or Phil Two Courses	6
Psy 101 General Psychology	5
Math Any except: 011, 032, 109A, 109B, 320, 420	5
Social Studies One Course (i.e., History, Government, Anthropology, Geography, Sociology, Social Work)	3-5

### II. Physical Education Core

(Select 20 hrs.)

HPER 115 Rhythms	2
HPER 218 Life Saving & Water Safety	2
HPER 220 Swimming, Lifesaving, WS1	2
HPER 202 Personal & Community Health	4
HPER 227 First Aid	3
HPER 290 The Art of Sports Officiating	2
HPER 380 Safety Education	4
HPER 381 Administration of Intramurals	4
HPER 204 Drugs, Alcohol, & Tobacco	4
HPER 339M Fall Football	3

HPER 340M Winter Basketball	3
HPER 341M Spring Baseball	3
HPER 340W Field Hockey & Soccer	1
HPER 341W Basketball & Volleyball	1
HPER 342W Softball, Track & Field	1

### III. Major Content Area (75 hrs.)

A. Professional Recreation Core: (select 44 hrs.)	
HPER 250C Recreation Leadership	3
HPER 314C Camping	4
HPER 345C Camp Leadership	2
HPER 449C Community Recreation	4
HPER 236C Field Experience	1-3
HPER 336C Field Experience	3
HPER 315C Outdoor Recreation & Education	4
HPER 251C Crafts for Recreational Programs	3
HPER 376C Philosophy & Principles of Institutional Recreation	4
HPER 310C Program Planning & Facilities for Recreation	4
HPER 403C History of Recreation	3
HPER 440C Internship	12
B. Professional Education Course:	
*EdAV 480 Audio-Visual Education	4
C. Recreation Tool Courses: (Select 18 hrs.)	
IndT 109 Crafts	2
Art 104 Basic Photography	3
Art 360 Elementary Teaching	6
HETC 110 Clothing Construction	2
ThAr 301 Play Production	4
ThAr 240 Introduction to Children's Drama	2
ThAr 340 Dramatic Literature for Children	3
ThAr 441 Creative Dramatics	3
Mus 120 Introduction to Music Literature	2
Mus 160 Music Fundamentals	3
Mus 161 Music for the Classroom	3
IndT 391 Elementary Industrial Arts	2
HPER 270C Teach of PE	3
HPER 301 Elementary Physical Education-Basic Movement	3
D. Sports Activities (Select 9 hrs.)	

\*Designates required course.

### IV. Primary Areas of Concentration:

(Select 35 hrs from either area A, B or C.)

**A. Recreation Therapy.** This option focuses upon planning and administering recreation programs serving the ill, disabled, aging and disadvantaged in both institutional and community settings. Students may qualify for positions serving disabilities in the areas of emotional illness, mental retardation, physically handicapped and aging. Career opportunities are also increasing rapidly in penal and correctional settings and community programs serving the culturally and socially disadvantaged.

Zool 301 Human Anatomy	6
Zool 352 Kinesiology	4
Psy 131 Psychology of Adjustment	4
Psy 432 Abnormal Psychology	5
EdSp 271 Intro. to Education of the Exceptional Child	3

EdSp 400 Intro. to Emotionally Disturbed . . . . .	3
EdSp 477 Problems of Adjustment for the Handicapped . . . . .	3
HPER 333 Adaptive Physical Education . . . . .	3
HPER 435 Recreation and Physical Education for the Mentally Retarded and Learning Disabled . . . . .	5
HPER 453 Clinical Observation & Practice in Phy. Medicine & Rehabilitation . . . . .	6

**B. Outdoor Education. Interpretive Services and Camping.** This option focuses upon planning and administering outdoor recreation programs, with special emphasis available for school-oriented programs and resident camping. Students may qualify for positions as interpretative naturalists, outdoor education resource persons, camp directors, visitor information center directors or supervisors of outdoor recreation programs in federal, state and local agencies.

Geog 235 Geography of Resource Management (Conservation) . . . . .	3
Geog 201 Environment and Man . . . . .	4
Geog 101 Elements of Physical Geography . . . . .	5
Geol 101 Earth Structure . . . . .	4
Geol 102 Surface Processes and Environment . . . . .	4
HPER 101 Orienteering . . . . .	1
HPER 101L Adv Orienteering . . . . .	1
Bot 311 Biology and Human Affairs . . . . .	3
Bot 102 Plant Biology . . . . .	5
Bot 247 Vegetation of North America . . . . .	3
Bot 309 Taxonomy of Flowering Plants . . . . .	5
Bot 425 Plant Autecology (or Zool 475) . . . . .	5
Bot 426 Plant Synecology . . . . .	5
Zool 203 Principles of Zoology . . . . .	6
Zool 371 Ornithology . . . . .	4
Zool 435 Entomology . . . . .	6
Zool 475 Animal Ecology (or Bot 425) . . . . .	3
Zool 476 Animal Ecology Lab . . . . .	2
Astr 300 Elementary Astronomy . . . . .	3
Astr 320 Elements of Navigation . . . . .	2
Psy 275 Educational Psychology . . . . .	5
EdEl 340 Teaching of Science . . . . .	4

**C. Recreational Management.** This option focuses upon the administration of recreation programs and will qualify students for positions with public recreation, voluntary agencies, resident institutions and camping administration.

Jour 105 Intro to Mass Communication (or InCo 105 or RTV 105) . . . . .	4
Jour 231 News Writing and Reporting . . . . .	3
Jour 471 Public Relations . . . . .	5
Econ 101 Principles of Economics . . . . .	4
Acct 101 Managerial Accounting . . . . .	4
Acct 102 Managerial Accounting . . . . .	4
Mgt 300 Management . . . . .	4
Mgt 420 Administration of Personnel . . . . .	4
Mgt 421 Personnel Management (Management 420) . . . . .	4
Mgt 440 Organizational Theory . . . . .	4

Mgt 325 Communication Behavior in the Modern Organization . . . . .	4
Fin 325 Managerial Finance . . . . .	4

Those interested in camp administration should select one of the three courses listed below:

HEFN 122 Food Science and Principles . . . . .	4
HEFN 128 Introduction to Nutrition . . . . .	3
HEFN 320 Meal Management . . . . .	3

## SCHOOL OF HOME ECONOMICS

Beulah E. Sellers, *Director*

The School of Home Economics is committed to the search for, and the application of, concepts and competencies which enable the individual to meet basic needs and to improve the quality of life within the context of his or her natural and interpersonal environment. The educational program focuses on the problems of human welfare that are of compelling significance in contemporary society: nutrition and health, design and environmental analysis, consumer decision making, emotional stability and the effects of technology and economic policy on such things as food, clothing, housing and interpersonal relationships.

The curricula of the School of Home Economics have four specific purposes.

1. To offer programs which provide specialized preparation for professionals in four areas: Human Development and Family Ecology, Human Nutrition and Food Sciences, Human Environment and Design and Consumer Service and Education.
2. To offer courses for the University community which enable the individual to meet basic needs and to improve the quality of life.
3. To offer continuing education and community service in response to basic and social needs.
4. To promote and support research and discovery.

The program is both cultural and professional. It includes general education in communications, natural science, humanities, social science and art as well as basic courses in all areas of home economics and professional courses in the major field and related areas.

The School of Home Economics offers 13 professional curricula leading to the BS in home economics degree. In addition, four curricula are offered for those following the two-year terminal program leading to the AA degree. Graduate work leading to either the MS degree or the MED degree is also offered (see Graduate College Bulletin).

**Special Facilities.** The program in home economics provides for a variety of activities and experiences. One nursery child care center and two home management houses are maintained on campus. Local high school home economics laboratories are available for student teaching. The School of Home Economics is approved by the State of Ohio Department of Education for training vocational home economics teachers. Off-campus activities have been developed with the Ohio State Cooperative Extension Service, the Health Department, business organizations, department stores, hospital dietary departments and radio-television stations to give the students opportunities for field work in specialized areas. Affiliation with the Merrill-Palmer Institute in Detroit, Mich., provides a unique experience for the junior or senior desiring a quarter of specialized training in all areas related to human development.

**Elective Courses and Special Programs.** The School of Home Economics offers a group of courses that have no prerequisites and are open to any student in the University. Individual courses may be elected. Special seminars or workshops for international students or for students who want to prepare for international service are offered each quarter.

**Degree Requirements for All Home Economics Majors**

Candidates for the degree of BS in home economics must fulfill the general requirements of the University, must complete a minimum of 180 hours, plus any physical education in excess of three hours. A point-hour ratio of 2.0 (C) is required on all hours attempted, but includes only final hours and grade points on repeated courses.

Opportunities for the professional home economist have never been greater in the business and professional world. Career op-

portunities are listed under each professional option. All majors in any field will take courses listed under requirements in general education, requirements in home economics, basic course requirements in the major field of study and requirements for the option selected in the area of specialization.

**Requirements in General Education**

Basic courses in general education required of all majors in home economics include:

English (See Professional Curricula)	10
InCo (See Professional Curricula)	3-4
Soc 101 or 302	5
Psy 101	5
Econ 101 or 201	4
Science (See Professional Curricula)	9-18
Humanities and/or Literature (See Professional Curricula)	3-15
Art (see Professional Curricula)	3-6

**Requirements in Home Economics**

Basic courses in home economics required of all majors include:

HEG 101	2
HEFN 128	3
HECF 160	4
HEHM 180	3
HETC 317	3
HECF 371	3
HEHM 395	3

**Requirements for Professional Curricula**

**Human Development and Family Ecology**

Basic course requirements for all child development and family life majors.

HECF 160	4
HECF 270 or 470	3
HECF 360	3
HECF 361	3
HEHM 396	4
HECF 462	3-6
Psy 121 (4), Psy 275 or EdCI 275 (5), Psy 333 (5) or approved substitutes*	14
Soc 309, 315 or 316	4
HSS 336	3-4
Zool 101, Bot 102, Zool 103	15
Approved electives in humanities and/or literature*	3
Art	3-6
InCo 103	4

Select one option for area of specialization:

**Option A — Nursery School Teaching:** prepares students for teaching in nursery

schools, day-care centers, Head Start programs and schools for handicapped children.

HECF 363	4
HEFN 462	6
HECF 463	5
HECF 464	6
EdEl 321	4
Mus 160	3
HPER 227	4
Art 360	3
EdAv 480	4
EdGS 410	3
Approved electives to total 40 hours*.	

**Option B — Child Development-Community Service:** prepares student for graduate study in child development or for work with community agencies, children's hospitals, clinics, children's homes and Head Start programs.

HEHM 390	3
HEG 399F	4
HEFN 429 (3) or HEFN 432 (3)	3
Psy 241	5
Psy 332	5
Psy 333	5
EdGS 410	3
SW 290 (4), SW 391 (4), SW 392 (4), or SW 498 or approved substitutes*	1-10
Approved electives to total 20 hours.	

\*Approval from chairman of the department.

**Option C — Family Life-Community Service:** prepares students for graduate study in family life or for work with youth programs, community recreation, settlement houses and family service agencies.

HEHM 390	3
HECF 471	4
Psy 241	5
Approved electives in psychology*	15
Approved electives in sociology and anthropology*	20
Approved electives to total 20 hours.	

\*Approval from chairman of the department.

## Human Nutrition and Food Science:

Basic course requirements for all foods and nutrition majors.

HEFN 122	4
HEFN 320	3
Chem 121 or Chem 141	5
Math 113 or equivalent	5
Microbiology	5
Humanities and/or Literature	8-10
Art	3-6
InCo 101 or 103	3-4
English 181 or equivalent	5

Select one option for area of specialization:

**Option A — Dietetics:** meets American

Dietetic Association academic requirements qualifying students for internship in general and community specializations — Plan IV.

HEFN 422	4
HEFN 426	3
HEFN 427	3-4
HEFN 428	4
HEFN 429	3
HEFN 430	4
HEFN 434	4
HEFN 435	4
HEFN 437	3
HEFN 438	2-4
HEHM 391	4
HEG 399C	2-4
Anth 270	5
Chem 122, 123	8
OR	
Chem 142, 143	10
Chem 301, 302	6
Econ 102 or 202	4
Psy 275 or EdCI 275	5
Mgt 420	4
Zool 345	4
Zool 463	4
CS 150 or Psy 121	3-5
Electives	

10-23

**Option B — Restaurant and Food Service Administration:** prepares students for careers in management and supervision in hotels, motels, restaurants, public schools, residence halls and industry.

HETC 315	4
HEFN 422	4
HEFN 434	4
HEFN 435	4
HEHM 391	4
HEFN 437	3
HEFN 438	2-4
HEG 399C	2-4
Chem 122, 123	8
Econ 102 or 202	4
Acct 101, 102	8
Mgt 300	4
Mgt 420	4
Mgt 425	4
Jour 250	5
BusL 255	4
CS 150	3
Approved electives in business, management and finance*	6-8
Approved electives in foods and nutrition*	6
Electives	

12-24

\*Approval from chairman of the department.

**Note:** To meet American Dietetic Association academic requirements qualifying student for internship in management specialization-Plan IV add the following courses:

Anth 270	5
Chem 301, 302	6
Zool 345	4
Zool 463	4
HEFN 426	3

HEFN 428	4
Psy 275 or EdCI 275	5

**Option C—Foods in Business and Communication:** prepares students for promotional work with utility companies, food or equipment companies, newspapers and magazines.

HEHM 390	3
HEFN 321	3
HEED 341	3
HEHM 391	4
HEFN 423	4
HEFN 426	3
HEFN 434	4
HEHM 396	4
HEFN 422	4
Chem 122, 123	8
OR	
Chem 142, 143	10
Chem 301, 302	6
Jour 231A or 441	4
Econ 102 or 202	4
InCo in addition to core requirement	4
Approved electives in business and/or communications*	18
Electives	23-31

**Option D — Nutrition with Science:** meets American Dietetic Association academic requirements qualifying student for internship in clinical and therapeutic specialization-Plan IV.

HEFN 422	4
HEFN 426	3
HEFN 427	3-4
HEFN 428	4
HEFN 429	3
HEFN 430	4
HEFN 431	3-4
HEFN 434	4
HEFN 437	3
HEFN 399C	2-4
Psy 275 or EdCI 275	5
Psy 121	5
Zool 345	4
Zool 463	4
Zool 464	3
Chem 301, 302	6
Anth 270	5
Econ 102 or 202	4
Electives*	28-38

\*Zool 301, 325, and 346 recommended.

## Consumer Service and Education

**Option A—Home Economics Education:** prepares students for teaching home economics in the junior and senior high schools and adult education programs.

Basic course requirements for all home economics education majors.

HETC 110	2
HETC 112	3

HEFN 122	4
HETC 315	4
HEHM 390	3
HEFN 320	3
HEED 340	3
HECF 361	4
HEHM 391	4
HEHM 396	4

Approved electives selected from 300 to 400 level courses in the following areas:\*

Child Development and Family Life	3-6
Foods and Nutrition	3-6
Housing, Furnishings and Management	3-6
Textiles and Clothing	3-6

\*Approval from chairman of the department.

InCo 103	4
Math	2-5
Science (bot and zool or chem)	13-15
Microbiology 369 A & B	5
Fine arts, religion or philosophy including at least 3 hrs of art	9
Literature elec	3-5
EcEd 447	4
Psy 275 or EdCI 275	5
EdPI 360	2
EdSe 250	4
EdSe 351	5
EdSe 480	3
EdPI 463, 464	12
EdPI 465	3
Electives	6-9

Students may complete requirements for job training certification by taking 45 hours of coursework in a specialized area of home economics. Permission must be granted by the home economics education advisor.

**Option B—Home Economics Extension:** prepares students for positions with the Co-operative Extension Service.

Home Economics extension majors take all basic course requirements listed above for home economics education majors.

Other suggested courses:

HEED 341	3
HEED 441	3
HEED 444	4

**Option C—Home Economics in Business:** a special option which can be combined with any other area of home economics. Students are prepared for positions with newspapers, women's magazines, radio and television companies, department stores and manufacturing companies.

Basic course requirements will include required courses in area of interest in home economics\* plus the following:

HEED 341	3
R-TV 121	4
R-TV 106	4



Jour 231	4
Jour 331	3
Jour 441	4
InCo 103	4
InCo 404	3
InCo 412	3
EdGS 410	3
Approved electives in journalism or radio-television*	6-9
*Approval from chairman of the department.	

## Human Environment and Design

### Textiles and Clothing

Basic course requirements for all textiles and clothing majors:

HETC 110	2
HETC 112	3
HETC 308	4
HETC 314	4
HETC 315	4
HEHM 390	3
HETC 402	4
HETC 405	3
HETC 407	5
HETC 419	5
HEHM 396, HEG 399D, or HEG 491E	4
HEHM 480	3
Art 101	5
CA electives	9
Econ 102 or 202	4
InCo 103	4
Jour 250	5
Mgt 300	4
Chem 121	5
Mkt 301	4

**Option A — Fashion Merchandising and Promotion:** prepares students for retail managerial and promotional positions such as buyer, fashion coordinator or consultant in department stores, traveling stylist for pattern or fabric manufacturers, for promotional instruction and demonstration, and for fashion writing.

Chem 122, 123	8
Art 102	5
Jour 231 or 441	4
CS 150	3
Business and/or communication electives	10
Approved electives in general education*	9
Electives	10

**Option B — Textiles Testing and Consumer Services:** prepares students for positions in testing laboratories and consumer service departments of large chain companies or fabric manufacturers, and for promotional instruction and product development in related industries such as in laundry, equipment and soap or detergents companies.

Chem 122, 123	8
OR	
Chem 142, 143	10

Elective in science or math	5
Electives in physics, math, chemistry, computer science, equipment and consumer sciences	17
Approved electives in general education*	8
Electives	10

**Option C—Dress Design:** prepares students for the position of apparel designer and other technical or managerial positions in clothing manufacture.

Chem 122, 123	8
Art 102	5
Art electives	17
Approved general education electives	9
Electives	10

### Design

**Option D—Interior Design:** offers basic preparation that qualifies students for initial positions in the field of home furnishings and interior design.

Basic course requirements for all home planning and decoration majors.

HEHM 180	3
HETC 315	4
HEHM 384	3
HEHM 385	4
HEHM 480	3
HEHM 481	3
HEHM 482	3
HEHM 396 or HEG 399D	4
HEG 491D	4
EnvD 151	3
EnvD 301, 302, 303	12
EnvD 401, 402, 403	15
EnvD 461, 462, 463	9
*Approved required course in business	9
CA 117, 118, 119	9
CA 351	3
Econ 102 or 202	4
EG 104	5
Jour 250	5
Mkt 301	4
Science—botany, zoology, physical world or chemistry	9-15
InCo 103	4
*Approval from chairman or advisor of the department.	

## SCHOOL OF NURSING

### BACCALAUREATE PROGRAM

The baccalaureate degree nursing curriculum has a dual purpose. The first is to prepare a beginning professional practitioner of nursing who can provide health care to persons, families and groups in a variety of settings through the utilization of a nursing process that incorporates both scientific and humanistic concepts. The second is to pro-

vide an educational base upon which graduate study for specialization as a clinician, teacher, administrator or researcher might be built. Liberal learnings are progressively developed throughout the program and provide the base of the rationale for the nursing major.

The nursing program has been tailored to meet the regional needs for nurses with baccalaureate preparation. This program is designed for registered nurses and will provide the upper two-year division courses leading the student to the bachelor of science in nursing degree. The program proposes to prepare:

1. practitioners with the primary skills necessary to meet the complex health needs of a widening age range of clients;
2. practitioners with abilities to utilize research findings in planning, giving and evaluating nursing care;
3. practitioners with decision-making ability;
4. practitioners with individual and family-centered community orientation;
5. practitioners with a sense of commitment for high-quality nursing care;
6. practitioners with skills in health teaching and health maintenance;
7. practitioners with a sense of accountability for their practice and with an understanding of their collegial relationships with others in providing interdisciplinary approaches to health care;
8. and finally, practitioners with skills and abilities to make critical nursing judgments based on the art and science of nursing.

### Program Prerequisites

Each student's basic nursing program will be evaluated on its own merits. As in any higher level program, certain stated prerequisites must be met by the applicant. The first of these is being graduated from a State Board of Nursing-approved program of nursing, either in the two-year associate degree level or in the three-year hospital diploma program. The second is to have obtained scores of 400 or better in each of the units of the State Board Test Pool Examination for Registered Nurse Licensure. The other prerequisites to applying to the program are:

One course in college English or communication (100-level English or In-Co 101 or 103)\*

Introduction to Sociology (Soc 101)\*

High school chemistry or one course in beginning chemistry or equivalent (Chem 121)\*

Introduction to Psychology (Psy 101)\*

Nutrition and Diet Therapy (content may be integrated within nursing courses) (HEFN 128)\*

Psychology of Growth and Development or equivalent (Psy 173 or HECF 160 or EdEl 200)\*

\*The information given in parentheses are the Ohio University equivalents.

### Program Admission Criteria

This program is limited to nurses holding licenses to practice registered nursing in Ohio. Other criteria for admission include:

1. Transcript from basic nursing program.
2. Licensure in Ohio and current registration.
3. Letters of recommendation from an employer who can give reference to the qualities of applicant's practice; from an associate or friend who can give character reference, and from a physician (M.D.) who can give reference to applicant's health status.
4. Score of 400 or more in each of the five areas of nursing examined on the State Board Test Pool Examination for Registered Nurse Licensure (350 is the minimum passing score in all states).
5. ACT or SAT score (may be waived if not already taken).
6. Must hold liability insurance coverage.
7. Agree to undertake National League for Nursing achievement tests administered at the beginning and end of the program at the student's expense.
8. Counseling interview with program director or designate.

### Curriculum Design

#### Required Courses in Nursing

Concepts in Health Care I	5
Concepts in Health Care II	5
Concepts in Health Care III	5
Concepts in Health Care IV	5
Concepts in Health Care V	5

## Elective Courses in Nursing (Select five)

Concepts in Health Care VI	5
Concepts in Health Care VII	5
Concepts in Health Care VIII	5
Concepts in Health Care IX	5
Concepts in Health Care X	5
Concepts in Health Care XI	5
Concepts in Health Care XII	5
Concepts in Health Care XIII	5
Concepts in Health Care XIV	5
Concepts in Health Care XV	5
Concepts in Health Care XVI	5
Concepts in Health Care XVII	5
Concepts in Health Care XVIII	5
Concepts in Health Care XIX	5

## Required Courses in General Education

### *Statistics (Select one)*

Psy 121-Elem. Stat. for the Behavioral Sciences	5
Soc. 350-Social Statistics	4

### *Psychology (Select one)*

Psy 315-Psychology of Human Differences	5
Psy 332-Abnormal Psychology	5
Psy 333-Psychology of Personality	5
Psy 336-Social Psychology	5

### *Sociology (Select two)*

Soc 220-Introduction to Family Sociology	4
Soc 309-Sociology of Appalachia	4
Soc 329-Minority Group Relations	4
Soc 425-Rural Sociology	4
Soc 424-Urban Sociology	4
Soc 430-Sociology of Organizations	4
Soc 431-Social Stratification	4
Soc 433-Sociology of Occupations and Professions	4
Soc 465-Social Change	4
Black Studies 362-Black Family	5

### *Human Relations and Communications (Select one)*

EdGS 410-Human Relations	3
InCo 205-Group Discussion	4
EdGS 440-Foundations in Group Dynamics	4

### *Physiology and Pathology (Select two)*

HSS 313-Respiratory and Phonatory Mechanism	3
HSS 314-Auditory and Neurological Mechanisms	3
HSS 422-Diagnostic Procedures in Speech Pathology	3
Psy 312-Physiological Psychology	5
Soc 361-Deviant Behavior	4
Zool H390-Biology and the Future of Man	5
Zool 450-Principles of Endocrinology	4

Approximately 25 additional credits will be required from the general education sector. Students will be encouraged to select courses of special interest to them. Guidance from the faculty will assist students

with questions and permit sharing of experience. Students considering continuing their education into the master's programs should seek careful guidance in making selections to insure the maximum background and foundation in the particular discipline.

Approximately 90 undergraduate credits will be derived by transfer of academic work earned in the student's basic nursing program. The bachelor of science degree in nursing is granted upon completion of the program of 192 quarter hours, with a point-hour ratio of 2.0 (C) on all hours attempted.

## Special Facilities

The program in nursing provides for a variety of activities and experiences across the broad grouping of health maintenance facilities as well as acute-care centers. Students will have responsibilities related to selected families in the region and will develop skills related to collaborative and team approaches to community health.

## Advisement

Counseling and advisement are particularly critical to the planning of each student's course schedule. Recommendations can be made to assist the student in following tracks leading to increased knowledge in sociological and psychological fields, patho-physiological fields and in the area of administration. These tracks exemplify possible ways of pursuing the program.

## SCHOOL NURSE PROGRAM

The School Nurse Program is designed to provide preparation for registered nurses to work in the schools. The program will enable interested and qualified nurses to pursue a baccalaureate degree in education and is designed to prepare them to work more effectively in the health services as educators. It may also allow qualified nurses to pursue certification as health teachers. This program stresses health promotion, health education and the health maintenance orientation needed in a school system.

Persons completing this program will be graduated with a bachelor of science in education degree with a major in school nursing. The admission requirements and program requirements for the BSEd in the

School Nursing Program are the same as for the Bachelor of Science in Nursing Program. Approximately 90 undergraduate credits will be derived by transfer of academic work earned in the student's basic nursing program. The bachelor of science degree in nursing is granted upon completion of the program of 192 quarter hours, with a point-hour ratio of 2.0 (C) on all hours attempted. Students enrolled in the baccalaureate program in nursing who wish to become certified as school nurses would need to contact their advisors in order to modify the standard program to accomplish this certification.

Professional Education—27-28\*

EdCI 275-Learning Processes in the Classroom, or Psy 275-Educational Psychology	5
EdEI 200-Studies of Children, or HECF 160-Intro to Child Development	4
EdSe 480-School and Society, or EdEI 460-Child and the Curriculum	3-4
EdPI 461-463-Elementary and Secondary School Student Teaching	12
EdPI 465-Student Teaching Seminar	3

Major—37-39

Psy 131-Psychology of Adjustment, or Psy 332-Abnormal Psychology	4-5
HPER 204-Drugs, Alcohol and Tobacco	3
HPER 333-Theory Adapted Activities	3

HPER 370-Community Health Programs	4
HPER 380-Safety Education	4
HPER 495-School Health Problems	5
HECF 360-Human Sexuality	3
HECF 470-Family Living, or HECF 471-Family Life Education	3-4
EdSp 271-Introduction to the Exceptional Child	3
NBSP 300-Concepts of Health Care I	5

General Education—20

(Students will be entering with the following general education courses or take them in addition to their degree requirements: Psy 101, Soc 101, Eng at 100-level or InCo 101 or 103, and will have sufficient science courses.)

a. One math course	5
b. Two humanities courses	6
c. One 100-level English course or InCo 103 whichever has not been met as an admission requirement	4-5
d. Select one course in general education	5

Electives—18

\*Persons following this program who also wish to be certified to teach health must complete the following courses which may be counted within the elective block:

EdSe 250-Analysis of Teaching	4
EdSe 351-Instructional Process & Curriculum	5
EdPI 464-Student Teaching Secondary School	6

## The College of Engineering and Technology

Richard S. Mayer, *Dean*

Harry L. Hoffee, *Assistant Dean*

The College of Engineering and Technology offers curricula leading to the bachelor of science degree in the fields of chemical, civil, electrical, industrial and systems and mechanical engineering; and industrial technology. These curricula are focused on the engineering profession in which a knowledge of the mathematical and natural sciences gained by study, experience and practice is applied to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind and the environment. Graduates have both the theoretical and practical training to begin professional careers or continue advanced work at the graduate level. Program flexibility is provided through options and electives so that the student may concentrate his or her studies in a chosen area within the department, or alternately use these electives in other areas such as law, business, or other professional fields.

All engineering curricula are fully accredited by the Engineers' Council for Professional Development, the national accrediting organization for engineering programs.

With careful planning a student may, in addition to the bachelor of science degree

from this college, obtain a second degree from the College of Arts and Sciences, the College of Business Administration, or the College of Fine Arts upon completion of 15 quarters in the University. (See "Degree, Second Bachelor's")

In addition to the Financial Aids Program sponsored by the University, the College of Engineering and Technology and its departments have separately funded scholarships. The student should request information from the individual departments or from the office of the dean.

### Degree Requirements

A candidate for a degree in the College of Engineering and Technology must satisfy all of the curriculum requirements of his or her particular field as specified on the following pages. In addition he or she must have a 2.0 (C) average on all hours attempted and a 2.0 (C) average on all hours attempted in engineering or industrial technology courses. These averages will be computed on final hours and points in repeated courses, if any.

## **Admission to an Engineering and Technology Program**

Upon admission to Ohio University, entering freshmen who have an objective of obtaining a degree in engineering or industrial technology may request direct entry into the College of Engineering and Technology. The student should indicate the choice of discipline on the official application for admission to the University, assuring the assignment of a faculty advisor in the department of his or her choice. In the event a student has not decided upon the specific major within the college, (area of concentration code #0910), the assistant dean will serve as his or her advisor until a choice of major is made. Students can readily change their majors both within the college and from college to college and at all times are eligible to take courses in all colleges of the University.

Students not requesting direct entry into the College of Engineering and Technology will be enrolled in the University College. These students should read the statements included in the University College section of this bulletin. Each student should indicate his or her choice of curriculum on the official application to the University. This will assist in the assignment of an advisor from the University College staff and proper guidance for the student in the desired program of study. Students in University College with an interest in engineering are encouraged to contact the various departments and/or the dean's office in the College of Engineering and Technology for information and assistance in the planning of their programs of study.

Course requirements for the freshman year in each of the major departments within the College of Engineering and Technology are nearly identical. Hence, while it is desirable to indicate a specific major field of study at an early point in time, a student seeking a degree in this college could defer a decision on a specific major field of study until the beginning of the sophomore year.

After completing degree requirements in the College of Engineering and Technology, the engineering student is qualified to seek, by examination, registration as a professional engineer from the Board of Registration for Professional Engineers of the state in which he or she intends to practice. It is to the student's advantage to take the examina-

tion during the spring or fall quarter closest to the expected time of graduation or as soon after graduation as is possible.

Graduate programs leading to the MS degree are available in all of the programs. In addition graduate work leading to the PhD degree is available in chemical and electrical engineering with post-master's work in the other engineering departments under consideration. These programs are described in detail in bulletins issued by the Graduate College of Ohio University.

## **Requirements for Continuing in the College**

Students enrolled in the College of Engineering and Technology, who maintain averages of 2.0 (C) or better, continue in the program in a normal manner. Averages below 2.0 (C) are the result of deficiency points. The academic records of students who acquire deficiency points in any quarter are reviewed at the end of that quarter by the office of the dean to determine if those students may continue in the program. A student in such a situation should discuss the matter with the dean of the college.

## **Humanities-Social Science Electives**

Each major departmental curriculum includes an extensive program of study in the social sciences and humanities. Lists of courses, which satisfy this requirement, are maintained in each major departmental office and in the office of the dean.

## **Pass/Fail Option**

Students at Ohio University may elect to take some courses on a pass/fail option. A passing grade under this option in a course counts as credit and hours earned for the course, but in no way does the pass grade count in the scholastic average. A failing grade counts as an F and is reflected in the scholastic average. The general rules for determining eligibility to take a course by this option are stated on the pass/fail application. In the College of Engineering and Technology, the departments of civil engineering, industrial and systems engineering and mechanical engineering apply the rules as stated on the pass/fail application. If a student is majoring in chemical engineering

he or she may not elect to take a required chemical engineering course on a pass/fail basis; a student majoring in industrial technology may not take an industrial technology course on a pass/fail basis, and a student majoring in electrical engineering may not take an electrical engineering course on a pass/fail basis.

## BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

The chemical engineering program is planned so that its graduates are familiar with the techniques used in analyzing and solving engineering problems associated with the chemical and related industries (petroleum, metallurgical, plastics, pollution control, etc.). In addition, the program provides an excellent background for graduate study in engineering, science, business administration, law or medicine.

Study in chemistry, mathematics, physics and communication skills is emphasized. Courses in engineering fundamentals are introduced, followed by intensive work in engineering analysis and design. Emphasis is placed upon the application of principles from many fields of study to the solving of engineering problems. Computer solutions, process control theory, economics and similar topics are stressed. Electives permit the student to pursue his or her interest in humanities, social sciences and technical areas.

A tutorial program, which can permit the best qualified candidates to complete the degree requirements in three academic years, is available in chemical engineering. See the Honors Tutorial College section of this bulletin for details concerning qualifications. Early application is recommended to arrange this program.

### Freshman

Fall	
ET 100-Engineering and Technology	3
ET 180-Problem Solving	3
Chem 141-Intro. College Chemistry	5
Soc. Sci. or Hum.**	4 or 5
Winter	
Math 263A-Analytic Geom. & Calc.	5
Chem 142-Chemical Energetics	5
EG 101-Engr. Graphics*	3
Soc. Sci. or Hum.**	3 or 4
Spring	
Math 263B-Analytic Geom. & Calc.	5

Chem 143-Quantitative Analysis	5
InCo 101 or 103*	3 or 4
Soc. Sci. or Hum.**	3 or 4

\*May be taken in any order.

### Sophomore

Fall	
Math 263C Analytic Geom. and Cal.	5
Chem 305 Organic Chem	3
Phys 251 Gen. Physics	5
ChE 200 Intro. Chem Engr.	4
Winter	
Chem 306-Organic Chemistry	3
Phys 252-General Physics	5
CE 220-Statics	4
Math 340-Differential Equations	5
Spring	
Chem 307-Organic Chemistry	3
Phys 253-General Physics	5
ChE 331-Prin. of Engr. Materials	4
Chem 303-Organic Chem. Lab	1
Soc. Sci. or Hum.**	4

### Junior

Fall	
ChE 300-Chem. Engr. Calc.	3
ChE 302-Thermo-Kinetics I*	4
ChE 342-Unit Oper. I	5
ChE 418-Materials Lab	1
Chem 453-Physical Chem	3

\*ME 321 is an acceptable substitute.

Winter	
ChE 303-Thermo-Kinetics II	4
ChE 343-Unit Oper. II	4
Chem 454-Physical Chemistry	3
ChE 413-Syn. and Analy. I	2
Soc. Sci. or Hum.**	3
Spring	
ChE 304-Thermo-Kinetics III	4
ChE 344-Unit Oper. III	4
Chem 455-Physical Chem	3
Chem 456-Physical Chem. Lab	2
ChE 414-Syn. and Analy. II	2
ChE elect—Students interested in polymer specialization can take ChE 471.	

### Senior

Fall	
ChE 415 Lab III-Unit Oper.	3
ChE 442 Process Control	4
ChE 443 Design	4
EE 313 Basic Elec. Engr. I	3
ChE or Tech. elec.	
Winter	
ChE 417 Lab V-Process Control	2
ChE 444 Design	3
ChE 480 Colloquium	1
EE 314 Basic Elec. Engr. II	3
Technical Elective***	3
Soc. Sci. or Hum.**	4

\*\*Note that, in general, courses outside the chemical engineering sequence can be taken at anytime provided prerequisites have been met. A total of 24 hours must be taken in social sciences and humanities, with a minimum of nine hours in each area.

\*\*\*Minimum list available in departmental office. These are courses in the areas of engineering, chemistry, mathematics and physics.

Spring	
ChE 416 Lab IV-Unit Oper	3
ChE elect	3
Technical Elective***	6
Soc. Sci. or Hum.**	3

Minimum of 180 hours required for the degree.

## BACHELOR OF SCIENCE IN CIVIL ENGINEERING

The civil engineering curriculum is designed to give the student a broad understanding of the basic physical sciences and mathematics. It provides a knowledge of civil engineering principles and practice in the areas of (1) engineering materials, including fluids and soils; (2) design of highways and other transportation facilities, including traffic control systems; (3) design and construction of structures of all types, and (4) environmental sanitation with particular emphasis on water supply and wastewater disposal. The curriculum also is designed to enhance the student's understanding of the world and its culture by introducing him or her to university-level study in humanities and social sciences.

### Freshman

Fall	
Chem 121 Gen. Chemistry	5
ET 100 Engr. and Tech.	3
ET 180 Problem Solving	3
Elective	
Winter	
Chem 122 Gen. Chemistry	4
Math 263A Geom. and Calc.	5
EG 101 Engr. Drawing	3
Elective	
Spring	
Chem 123 Gen. Chemistry	4
Math 263B Geom. and Calc.	5
CE 210 Plane Surveying	4
InCo 103 Public Speaking	4

### Sophomore

Fall	
Math 263C Geom. and Calc	5
CE 220 Statics	4
EG 121 Desc. Geom.	3
Phys 251 Physics	5
Winter	
ET 240 Computer	3
CE 321 Dynamics	4
Phys 252 Physics	5
Elective	

Spring	
Geol 283 Geology	5
CE 222 Strength of Materials	4
CE 223 Strength of Materials Lab	1
Phys 253 Physics	5

### Junior

Fall	
CE 330 Structural Theory I	5
CE 340 Fluid Mechanics	5
CE 341 Fluid Mechanics Lab	1
Math 340 Differential Equa	5
Winter	
CE 370 Soils	4
ME 321 Thermodynamics	4
CE 311 Route Engr	4
ISE 404 Statistics	3
Spring	
CE 342 Applied Hydraulics	3
CE 343 Hydrology	4
CE 361 Transportation	4
ChE 331 Principles of Materials	4

### Senior

Fall	
CE 433 Steel Design	4
CE 450 Water Treatment	3
EE 313 Basic Elec. Engr. I	3
Elective	
Winter	
CE 432 Concrete Design	4
CE 451 Wastewater Treatment	3
EE 314 Basic Elec. Engr. II	3
Elective	
Spring	
Electives	

Above list shows only courses specifically required for a civil engineering degree. In addition to these, 24 credit hours are required in the humanities and social sciences with no fewer than eight in either field. A list of acceptable electives is available in the civil engineering office.

Also, in addition, any three civil engineering courses taken from the list below are required: fall quarter—CE 471 Found., CE 424 Str. Mtls., CE 452 Wtr. Anal.; winter quarter—CE 331 Struct. Th., CE 415 Photo., CE 457 Wtr. Res., CE 462 Traffic; spring quarter—CE 434 Struc. Des., CE 481 Pavement Design, CE 410 Surveying II.

Qualified students may, with the permission of the instructor, substitute certain graduate-level courses for the foregoing civil engineering electives.

A minimum of 180 credit hours is required for the degree.

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

The Department of Electrical Engineering is located in Clippinger Research Laboratory, a modern facility housing undergraduate, graduate and research activities of the



department. Electrical engineering addresses the wide application of electrical and electronic phenomena to real-world needs, from consumers to space exploration.

Following a freshman year which is essentially common to all engineering degree programs, the electrical engineering student is promptly introduced to digital computers, analog computers and modern electronic instrumentation. The remainder of the sophomore year and the junior year provide a solid analytical foundation for all of the various electrical engineering specialties. The senior year provides an opportunity for the student to specialize in those areas he or she finds most interesting. Courses may be chosen from communications, power systems and energy conversion, network theory, electronics, electromagnetic fields, computer systems, control systems and others. For students seeking greater depth or breadth, electrical engineering offers programs leading to the MSEE and PhD.

#### Freshman

Fall	
ENT 100 Engineering and Technology <sup>1</sup> . . . . .	3
ENT 180 Problem Solving . . . . .	3
Chem 121 Intro. to Chemistry . . . . .	5
Elective <sup>2</sup> . . . . .	4-5
Winter	
Math 263A Analytic Geom. and Cal. . . . .	5
Chem 122 Chemistry of Solutions or other natural science <sup>3</sup> . . . . .	4
EG 101 Engr. Graphics <sup>4</sup> . . . . .	3
Elective <sup>2</sup> . . . . .	3-5
Spring	
Math 263B Analytic Geom. and Cal. . . . .	5
Chem 123 Environmental Chemistry or other natural science <sup>3</sup> . . . . .	4
InCo 101 Fund. of Speech or InCo 103 Public Speaking <sup>4</sup> . . . . .	3-4
Elective <sup>2</sup> . . . . .	3-5

#### Notes on freshman year:

1. ENT 100 may be taken any quarter of the freshman year.
2. Electives in the freshman year are normally taken in the humanities/social sciences area. Exceptions must be approved by a faculty advisor.
3. Alternatives to chemistry must be both in the same area. Approved areas are life-sciences (biology, zoology and botany) and earth sciences (geology) and should be chosen only after consultation with a faculty advisor.
4. There is no preferred order on EG 101 and InCo 101/103.

#### Sophomore

Fall	
Math 263C Analytic Geom. and Cal. . . . .	5
Phys 251 Gen. Physics . . . . .	5
EE 210 Circuit Analysis I . . . . .	4
ET 240 Intro. to Digital Comp. Sol. of Engr. Prob. . . . .	3

Winter	
Math 340 Differential Equations . . . . .	5
Phys 254 Gen Physics for Elect. Engr. . . . .	5
EE 211 Circuit Analysis II . . . . .	4
EE 221 Inst. and Comp. Lab. II . . . . .	3

Spring	
EE 212 Circuit Analysis III . . . . .	4
EE 222 Inst. and Comp. Lab. III . . . . .	3
EE 232 Analyt. Found. of Elect. Engr. . . . .	5
Elective <sup>5</sup> . . . . .	3-5

#### Junior

Fall	
EE 301 Intermediate Laboratory I . . . . .	1
EE 310 Linear Systems and Networks I . . . . .	4
EE 330 Energy Conversion I . . . . .	4
EE 340 Electronics I . . . . .	4
Elective <sup>5</sup> . . . . .	3-4

Winter	
EE 302 Intermediate Laboratory II . . . . .	1
EE 321 Electromagnetics and Materials I . . . . .	4
EE 331 Energy Conversion II . . . . .	4
EE 341 Electronics II . . . . .	4
Elective <sup>5</sup> . . . . .	3-4

Spring	
EE 303 Intermediate Laboratory III . . . . .	1
EE 312 Linear Systems and Networks III . . . . .	4
EE 322 Electromagnetics and Materials II . . . . .	4
EE 332 Energy Conversion III or EE 342 Electronics III . . . . .	2
Elective <sup>5</sup> . . . . .	4-6

#### Note on sophomore and junior years:

5. These elective spaces should be utilized to satisfy requirements CE 220, CE 222, ME 321 and Phys 316. Additional available time may be applied toward satisfaction of humanities/social sciences requirements.

#### Senior

Fall	
EE 401 Advanced Laboratory I <sup>6</sup> . . . . .	1-3
Technical Elective <sup>7</sup> . . . . .	9
Elective <sup>8</sup> . . . . .	5-7
Winter	
EE 402 Advanced Laboratory II <sup>6</sup> . . . . .	1-3
Technical Elective <sup>7</sup> . . . . .	6
Elective <sup>8</sup> . . . . .	8-9
Spring	
EE 403 Advanced Laboratory III <sup>6</sup> . . . . .	1-3
Technical Elective <sup>7</sup> . . . . .	6
Elective <sup>8</sup> . . . . .	8-9

#### Notes on senior year:

6. Total senior lab (EE 401, 402, 403) requirement is five hours, with a minimum of one hour in each quarter.
7. Senior technical electives are normally 400-level EE courses, although a few alternates are acceptable on special programs with the approval of the faculty advisor. Total technical elective requirement is 21 hours minimum.
8. May be divided between humanities/social science electives (consult departmental office for acceptable courses) and free electives subject to these requirements:
  - a) humanities/social science hours total (over four years) is 22 hours minimum, with no fewer than eight hours in either area;
  - b) total program earned hours minimum is 190 hours.

# BACHELOR OF SCIENCE IN INDUSTRIAL AND SYSTEMS ENGINEERING

Industrial and systems engineering is concerned with the design and analysis of integrated systems of people, equipment and materials. It draws upon knowledge from the mathematical, physical and behavioral sciences which, in conjunction with the principles and methods of engineering analysis and design, is used to predict, to design, to control and to evaluate the performance of complex systems. Although program emphasis is centered around industrial systems, consideration is also given to governmental and service systems.

Courses in the first two years of the program are similar to the curricula of other engineering departments, and provide the necessary foundation in basic subjects upon which advanced engineering work depends. The last two years of work provide the professional level material, including computer-related instruction, necessary for the interdisciplinary activities that are required of the modern industrial or systems engineer.

## Freshman

Fall		
ENT 100 Engineering and Technology	3	
ENT 180 Problem Solving	3	
Chem 121 Intro. to Chemistry	4	
OR		
Chem 141 Intro. to College Chem	5	
Electives*		
Winter		
Math 263A Analytic Geom. and Calculus	5	
Chem 122 Chemistry of Solutions	4	
OR		
Chem 142 Chemical Energetics	5	
InCo 103 Public Speaking	4	
Electives*		
Spring		
Math 263B Analytic Geom. and Calculus	5	
Math 211 Elem. Linear Algebra	5	
EG 101 Engineering Drawing	3	
Electives*		

## Sophomore

Fall		
Math 263C Analytic Geom. and Calc.	5	
Phys 251 General Physics	5	
CE 220 Statics	4	
ISE 231 Intro. to Industrial and Systems Engr	2	
Winter		
Math 340 Differential Equations	5	
Phys 252 General Physics	5	
ISE 330 Engineering Economy	3	
IndT 117 Engineering Metals	3	
Spring		
Phys 253 General Physics	5	
ISE 304 Applied Engr. Statistics	3	

CE 222 Strength of Materials	4
ET 240 Intro. to Computer Solutions	3

## Junior

Fall		
ISE 305 Engineering Statistics I	3	
ISE 333 Work Design I	3	
Acct 101 Industrial Accounting	4	
CE321 Dynamics	4	
OR		
CE 340 Fluid Mechanics	5	
CE 223 Strength of Materials Lab	1	
Winter		
ISE 420 Analysis of Engr. Situations I	3	
OR		
ME 401 Systems Analysis & Control	4	
ISE 306 Engineering Statistics II	3	
ISE 435 Quality Control	3	
EE 313 Basic Electrical Engr. I	3	
Mgt 325 Communication Behavior	4	
Electives*		
Spring		
ISE 448 Man-Machine Systems	3	
ChE 331 Principles of Engr. Materials	4	
ME 321 Intro. to Thermodynamics	4	
EE 314 Basic Electrical Engr. II	3	
Electives*		

## Senior

Fall		
ISE 432 Inventory Control I	3	
ISE 441 Operations Research	3	
Electives*		
Winter		
ISE 440 Plant Design	3	
ISE 433 Industrial Computer Applic	5	
Electives*		
Spring		
ISE 445 Systems Design	3	
Electives*		

\*A minimum of 52 hours of electives is required including 24 hours in the humanities and social sciences, nine hours in the engineering sciences and nine hours in industrial and systems engineering. The remaining ten elective hours may be freely chosen. Students with an interest in the life sciences should consult with their ISE advisors about substituting up to ten hours of life science courses for required physical science courses.

Students may specialize in one of a wide variety of fields by the proper choice of electives. We urge students to come to their advisors or the department office for information about electives.

# BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Mechanical engineering is concerned with (1) the economical and ecological conversion of energy from natural sources to provide power, heat, cooling and propulsion; (2) the design of all types of machines.

engines and vehicles; (3) the processing of materials into useful products, and (4) the development of systems for using machines and resources. Professional areas include research, development, design, testing, production operation and maintenance, marketing and sales and administration.

The curriculum provides the versatile academic preparation required to enter the profession and the fundamentals of a liberal education. Theoretical analysis, practicality, laboratory skills and design synthesis are all important aspects of the program. Specialization is provided by elective courses during the senior year.

Students majoring in mechanical engineering as preparation for entry into other professions such as law, medicine, business, etc., should consult with the department chairman regarding schedule modification required to meet specific career objectives.

Outstanding high school students are invited to apply for admission to the Honors Tutorial Program in mechanical engineering. Please consult the section on the Honors Tutorial College in this catalog for additional information.

#### Freshman

Fall	
Chem 141-Intro. College Chem	5
ET 100-Engr. & Tech	3
Hum. & Soc. Sci. Elec	3
ET 180-Problem Solving	3
Winter	
Chem 142-Chem. Energetics	5
EG 101-Engr. Drawing	3
Hum. & Soc. Sci.-Elec	3
Math 263A-Anal. Geom. & Calc.	5
Spring	
Chem 143-Quantitative Analy.	5
Hum. & Soc. Sci.-Elec	3
InCo 101-Fund. of Speech	3
Math 263B-Anal. Geom. & Calc	5

#### Sophomore

Fall	
CE 220-Statics	4
Phys 251-General Physics	5
Math 263C-Anal. Geom. & Calc	5
IndT 270-Report Writing	3
Winter	
CE 321-Dynamics	4
Phys 252-General Physics	5
IndT 117-Metlwkng. for Engrs	3
EG 121-Desc. Geometry	3
ET 240-Intro. to Computer Solutions	3
Spring	
CE 222-Strength of Matl.	4
CE 223-Strength of Matl Lab	1
Phys 253-General Physics	5
Math 340-Diff. Equations	5

#### Junior

Fall	
EE 313-Basic EE I	3
EE 304-Basic EE I Lab	1
ChE 331-Prin. of Engr. Matls	4
ME 301-Dynamics of Machines	5
CE 340-Fluid Mechanics	5
Winter	
EE 314-Basic EE II	3
EE 305-Basic EE II Lab	1
ME 321-Intro. to Thermo	4
ME 322-Intro. to Thermo Lab	2
ME 313-Metal Processing	3
Hum. & Soc. Sci.-Elec	3
Spring	
ME 403-Machine Design I	4
ME 412-Heat Transfer	5
ME 328-Applied Thermo	5
ChE 418-ChE Lab VI-Matls	1
Hum. & Soc. Sci.-Elec	3

#### Senior

Fall	
ME 404 <sup>5</sup> -Machine Design II	4
OR	
ME 417 <sup>5</sup> -Des. of Thermal Systems	4
ME 401-Systems Anal. & Controls	4
ME 491-Mechanical Vibrations I	3
ME Senior Lab <sup>1</sup>	3
ME 480 <sup>2</sup> -Symposium	1
Winter	
ME Elective <sup>3</sup>	3
Hum. & Soc. Sci.-Elec	3
ME Symposium	0
Phys 316-Cont. Physics	3
Econ 201-Intro. to Econ. Anal.	4
Elective <sup>4</sup>	3
Spring	
ME Elective <sup>3</sup>	3
Hum. & Soc. Sci.-Elec	3
Elective <sup>4</sup>	5
ME Symposium	0

<sup>1</sup>To satisfy this requirement one may select: ME 430-Applied Thermodynamics Lab (3), ME 418, 419, and 420—Mechanical Engineering Experimentation (3); or ME 484-Problems in Thermal Machinery (3).

<sup>2</sup>Attendance at the ME Symposium is required of all ME students during their last three quarters on campus.

<sup>3</sup>Six hours of ME Electives required.

<sup>4</sup>Elective to be selected in consultation with your advisor.

<sup>5</sup>Students interested in mechanical design should enroll in ME 404 while those interested in thermal design should enroll in ME 417 as part of this nine-hour requirement.

Minimum of 190 hours required for the degree.

## BACHELOR OF SCIENCE IN INDUSTRIAL TECHNOLOGY

This program is designed to prepare personnel for responsibility in production areas of manufacturing industry. A minimum

of 180 quarter hours, which includes all specified degree requirements, is necessary for graduation.

Courses in mathematics, sciences and data processing are included in order to build channels for communication with engineering personnel. Management oriented courses are provided to assist in developing understanding of the industrial environment. Special emphasis is placed upon procurement of technical knowledge related to drafting, electronic and fluid power control, common materials and the techniques available for forming, machining and joining the materials of industry.

Alternate fields of specialization are available according to the selection of restricted electives. An optional plan, featuring industrial work during the college career, is available under the program of cooperative work-study established with several companies.

## Degree Requirements

### 1. Required Technology Courses

	34 hours
INDT 115 Metal Fabrication	4
INDT 216 Metal Machining	4
INDT 220 Small Engines	3
INDT 270 Report Writing	3
INDT 308 Plastics	3
INDT 310 Metal Casting	3
INDT 318 Numerical Control	3
INDT 320 Hydraulic Controls	3
INDT 332 Electronics	5
INDT 362 Product Manufacture	3

### 2. Technology Electives

40 hours  
Selected from available offerings in the departments of Industrial Technology and Engineering Graphics. (Excluded are courses in crafts and driver education.)

### 3. Mathematics

11 hours  
Including algebra, trigonometry and calculus.

### 4. Physics and Chemistry

20 hours  
Including associated laboratory activity.

### 5. Related Requirements

	28 hours
EG 101 Engineering Drawing	3
Econ 101 Principles	4
Acct 101 Managerial	5
InCo 101 Fund. of Speech	3

Psy 101 General	5
Mgt 300 Management	4
QM 420 FORTRAN	4

### 6. Humanities and Social Science

12 hours  
Minimum of 8 hours from comparative arts, English, literature, foreign language or philosophy.

### 7. Associated Electives

20 hours  
Concentration around a single core of business administration, engineering or teaching certification as listed on the checksheet provided upon enrollment in the program.

### 8. Unrestricted Electives

18 hours  
Or as necessary to achieve the 180 hour total required for graduation.

## First-Year Program

The following courses are suggested as being suitable for the first year. All will apply for full-credit regardless of program option selected at a later date. Each student should make an appointment at the department office to discuss the program before enrollment beyond the freshman year.

IndT 115	4	IndT 216	4	IndT 220	3
Chem 121	4	Chem/Phys	4	Acct 101	5
EG 101	3	Econ 101	4	ENT 100	3
Math 163A	4	Math 163B	4	Psy 101	5
	16		16		16

## Transfer Students

A program option is available for students who transfer credits earned while obtaining their associate degrees in some field of engineering or technology from another approved school. Those accepted into this option are assigned junior standing and are furnished checksheets showing the remaining hours of upper-level requirements specified for attainment of the bachelor's degree.

## TEACHING INDUSTRIAL ARTS

Students who desire to teach industrial arts normally enroll for the bachelor of science in education degree. Requirements for this degree are listed in the College of Education section of this catalog.

A teaching option is provided under the industrial technology program through utilization of both associated and unrestricted electives to satisfy requirements for certification. Students interested in this option should declare their intent no later than the first quarter of the junior year in order that exact requirements can be determined and scheduled prior to graduation.

## TEACHING DRIVER EDUCATION

Specialized courses in driver and safety education, as required for teacher certification, are provided by the Department of Industrial Technology. Those wishing to obtain this certification should check at the College of Education to learn the specific requirements for their programs.

## The College of Fine Arts

Henry H. Lin, *Dean*

James H. Conover, *Associate Dean*

The College of Fine Arts includes the School of Art, the School of Dance, the School of Music, the School of Theater, the Department of Comparative Arts and the Department of Film. A broad, cultural education in the fine arts is offered, as well as specialized training in the following areas: graphic design, art history, art education, ceramics, painting, photography, printmaking, sculpture; applied music, music education, music history and literature, music theory and composition, music therapy; acting, production design, playwriting, theater education and children's drama.

### Admission Requirements

In addition to general acceptance for admission to Ohio University, students transferring from other colleges and universities are required to audition, submit a portfolio or meet other requirements prior to final acceptance as majors in the College of Fine Arts. Applicants are advised to write the director of the particular program in which they are interested for detailed information.

Ohio University students requesting admission into major programs of the college may also be required to meet the above

criteria, and should consult the appropriate director prior to arranging for transfer.

High school applicants to Ohio University who wish to pursue a degree program in the College of Fine Arts may apply for direct entry into the college. The applicant is strongly urged to audition or submit a portfolio if he or she desires direct entry. Students requesting direct entry who are not screened in this manner will be accepted into their majors on a provisional basis only. Final acceptance into a major program will require an audition or portfolio review.

Students who are uncertain about their choice of major are encouraged to delay their entry into the College of Fine Arts until they have been in attendance at the University for at least one quarter and have taken some courses in the area of primary interest.

Students intending to major in art history are not required to submit portfolios.

### Degrees and General Requirements

The bachelor of fine arts degree is granted upon the completion of a program in the School of Art, the School of Dance or the School of Theater. The School of

Music grants the bachelor of music degree. These degrees fulfill four functions: to provide the student with specialized training in one of the fine arts; to provide a firm foundation for professional achievement; to provide a cultural background through a study of the relationship of all the arts, and to prepare the student, as far as possible, to become a responsible member of society. To these ends, the programs have been kept flexible to meet individual needs.

Candidates for most degree programs in the College of Fine Arts must complete a minimum of 180 quarter hours with a total point-hour ratio of at least 2.0 (C). The minimum number of quarter hours for some degree programs in music is higher, varying according to the academic program involved.

The work of each student in the College of Fine Arts and its various schools will be reviewed no less than once a year by the faculty. When appropriate, the student will be notified of the faculty's assessment of his or her program and use of talent. In cases of warning or denial of further registration as a degree candidate in a specific program, the student will receive a written notice. In the event of denial, the student is still free, subject to University regulations, to change to another degree objective offered by the College of Fine Arts. If preferred, the student may apply for transfer to another academic division of the University, and subject to regulations, continue to register for coursework in the College of Fine Arts on an elective basis.

Further, a student with outstanding qualifications may request from his or her advisor consideration for acceleration by the waiver of certain required courses.

### Advising

Each school in the College of Fine Arts maintains a system of academic advising for its majors, with assigned members of the faculty to serve in such capacity. The advisor keeps a current academic record for each student under his or her supervision, and is available for counseling and assisting the student in planning courses, making sure that all requirements for the major are met. Deviations from the normal course requirements, including waivers, must be approved in writing by the advisor. In some cases, additional approval by a faculty committee is required. Students are urged to meet with

their advisors regularly, especially prior to registration, to ascertain that they are following an approved course of study. Students may check with the directors of their schools to learn the names of their advisors.

In any case, each student should understand that he or she alone has the ultimate responsibility for making certain that all academic requirements are fulfilled for graduation.

### Dual Majors

In some cases, a student may wish to pursue a major in two related fields simultaneously, earning a dual major. All course requirements in each major must be met. Some courses, including electives, may be considered as satisfying a requirement in both majors, but the credit hours for each course will be tallied only once. So long as curriculum requirements are met for each major, additional credit hours are not required.

Although a student may take a concentration of credit hours in a specific area, the College of Fine Arts does not recognize a minor.

### Pass/Fail Option

Students may take a limited number of courses outside their majors on a pass/fail basis. A list of courses excluded from this option is maintained in the office of the dean.

### Scholarships and Awards

There are a limited number of scholarships and awards of varying amounts available to majors in the College of Fine Arts. Some awards are renewable; others are granted on a one-time basis, renewable only at the discretion of the school involved. In all cases, technical performance is as important as academic achievement. Interested students should contact the director of the particular school involved.

## SCHOOL OF ART

Jose L. Barrio-Garay, *Director*

The mission of the School of Art at Ohio University is to foster creativity and to make

the understanding and practice of the visual arts the basis for its curricula and programming. Students undertake programs of study appropriate to their professional goals and to contemporary orientations in both studio and critico-historical studies. The integrity and potentials of the individual student are given the utmost consideration, and individualized instruction is made congruent with the direction in which the student develops.

The studio foundation program is designed to familiarize students with basic art concepts and the structure of form. During the sophomore year studio courses emphasize media relevant to the student's major interest. At the end of the sophomore year areas require a portfolio review. At this point each student, together with his or her advisor, will determine individually the course of study he or she will follow for the remaining two years. Thus the freshman and sophomore years constitute a broad program and the junior and senior years a more intensive plan.

The BFA degree in the School of Art requires a minimum of 180 quarter hours. It is offered in art education with teacher certification, art history, graphic design, photography and the studio majors of ceramics, painting, printmaking and sculpture.

Students are encouraged to select electives from the areas of fine arts (comparative arts, dance, music and theater), literature, philosophy, sociology and anthropology, psychology, linguistics, communications, physical science and mathematics.

## Studio Majors

Freshman		
CA 117..... 3	CA 118..... 3	CA 119..... 3
English..... 5	English..... 5	Art 103..... 5
Art 101..... 5	Art 102..... 5	Electives..... 7-9
Electives..... 2-5	Electives..... 2-5	
Sophomore		
AH 211..... 3	AH 212..... 3	AH 213..... 3
Art Major..... 3-5	Art Major..... 3-5	Art Major..... 3-5
Electives..... 7-9	Electives..... 7-9	Electives..... 7-9
Junior		
AH..... 4	AH..... 4	AH..... 4
Art Major..... 5	Art Major..... 5	Art Major..... 5
Electives..... 6	Electives..... 6	Electives..... 6
Senior		
Art Major..... 5	Art Major..... 5	Art Major..... 5
Electives..... 10	Electives..... 10	Electives..... 10

36 hours minimum in major; 18 hours minimum in AH beyond freshman level.

## Art History Majors

Prospective art history majors should contact a member of the art history faculty at registration to assure proper planning to cover requirements.

Freshman		
CA 117..... 3	CA 118..... 3	CA 119..... 3
English..... 5	English..... 5	Art 103..... 5
Art 101..... 5	Art 102..... 5	Electives..... 7-9
Electives..... 2-5	Electives..... 2-5	
Sophomore		
AH 211..... 3	AH 212..... 3	AH 213..... 3
Art Course..... 3	Art Course..... 3	Art Course..... 3
Non-Art electives..... 9	Non-Art electives..... 9	Non-Art electives..... 9
(Attainment of a reading knowledge of at least one foreign language should be considered in the selection of electives in the sophomore year.)		
Junior		
AH Major..... 4	AH Major..... 4	AH Major..... 4
Art Course..... 3	Art Course..... 3	Art Course..... 3
Non-Art electives..... 8	Non-Art electives..... 8	Non-Art electives..... 8
Senior		
AH Major..... 8	AH Major..... 4	AH Major..... 4
Art Course..... 3	Art Course..... 3	Art Course..... 3
Electives..... 4	Electives..... 8	Electives..... 8

36 to 45 hours in major beyond CA 119.

## Art Education Majors

A student interested in teaching art at the elementary or secondary level follows a sequence of courses leading to the BFA degree in art education with certification. At least 45 quarter hours in studio courses in two-dimensional and three-dimensional art should be selected, including a course in graphic communication; 27 quarter hours in art history and/or comparative arts except history of oratory and history of music, and at least ten quarter hours of electives in studio art or art history.

Freshman		
CA 117..... 3	CA 118..... 3	CA 119..... 3
English..... 5	Psy 101..... 5	English..... 5
Art 101..... 5	Art 102..... 5	Art 103..... 5
Electives..... 2-5	Electives..... 2-5	Electives..... 2-5
Sophomore		
AH 211..... 3	AH 212..... 3	AH 213..... 3
Soc. Sci..... 3-5	Soc. Sci..... 3-5	EdSe 250..... 4
Math..... 2-5	Sci..... 2-5	Art..... 3
Art..... 3	Art..... 3	Art..... 3
GfcD..... 4	Psy 275 or EdCI 275..... 5	Electives..... 2-5
Junior		
CA/AH..... 3-4	CA/AH..... 3-4	CA/AH..... 3-4
EdPI 360..... 2	Art..... 3	Art 461..... 3
EdSe 351..... 5	Art..... 3	Art..... 3



Art..... 3	Electives..... 6	AH/Art
Art..... 3		Electives... 3-4
		Electives..... 3

#### Senior

Art 462..... 3	EdPl 461..... 6	AH/Art
AH/Art	EdPl 463..... 6	Electives... 3-4
Electives... 3-4	EdPl 465..... 3	AH/Art
Electives..... 9		Electives... 3-4
		Electives..... 6
		EdSe 480..... 3

Students in art education should check carefully with their advisors, members of the art education faculty, to be certain their programs are correct. See the College of Education section for general and professional requirements for teacher certification.

## Graphic Design

The graphic design curriculum provides a course of study leading to the BFA in graphic design. The program is intended to prepare students to enter the graphic design profession and to provide a field of exploration for students in other areas of the school and the University, such as photography, printmaking and art education, film, theater, journalism and communications.

The professional program, which requires a design faculty advisor, includes a minimum of 36 hours in design major courses and electives in studio arts, journalism and communications. Additional electives may be chosen to meet individual interests.

Sophomore major courses that are non-sequential are open to any student with the completed prerequisites of Art 101-103. At the end of the sophomore year a portfolio review is required of design majors. The professional program of study for the junior and senior years is determined through extensive counseling on an individualized basis. Senior major courses are individually oriented, with provisions for independent study. The program concludes with the preparation of a portfolio and senior design exhibition.

#### Freshman

CA 117..... 3	CA 118..... 3	CA 119..... 3
English..... 5	English..... 5	Art 103..... 5
Art 101..... 5	Art 102..... 5	Electives... 7-9
Electives... 2-5	Electives... 2-5	

#### Sophomore

AH 211..... 3	AH 212..... 3	AH 213..... 3
Des Maj... 3 or 5	Des Maj... 3 or 5	Des Maj... 3 or 5
Electives... 7-9	Electives... 7-9	Electives... 7-9

#### Junior

Art history... 4	Art history... 4	Art history... 4
Des Maj... 3 or 5	Des Maj... 3 or 5	Des Maj... 3 or 5
Electives... 6	Electives... 6	Electives... 6

#### Senior

Des Maj... 3 or 5	Des Maj... 3 or 5	Des Maj... 3 or 5
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Electives... 10	Electives... 10	Electives... 10
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36 hours minimum in major; 18 hours minimum in art history beyond freshman level.

## Photography Majors

Students intending to major in photography should take Art 104 before applying for admission to the major area. Selection of major candidates is by portfolio evaluations, held at the beginning of each quarter.

A planned course of study should include work in the humanities and art history, as well as studio foundations and other studio arts. Elective courses can be chosen from the curricula with the assistance of an assigned advisor.

Third- and fourth-year work can be concentrated in either fine art or applied photography, with special emphasis on media and photojournalistic applications. Specific problems are worked out in consultation with the faculty.

#### Freshman

CA 117..... 3	CA 118..... 3	CA 119..... 3
Art 101..... 5	Art 102..... 5	Art 103..... 5
English..... 5	English..... 5	Art 104..... 5
	Electives... 2-5	Electives... 2-5

#### Sophomore

AH 237..... 4	AH 238..... 4	AH 239..... 4
Art 295..... 5	Art 296..... 5	Art 297..... 5
Electives... 6-9	Electives... 6-9	Electives... 6-9

#### Junior

PhotMajor... 5	PhotMajor... 5	PhotMajor... 5
AH 211..... 3	AH 212..... 3	AH 213..... 3
Electives... 7-9	Electives... 7-9	Electives... 7-9

#### Senior

Phot Major... 5	Phot Major... 5	Phot Major... 5
Electives... 10-13	Electives... 10-13	Electives... 10-13

30 hours minimum in the major beyond 297. 21 hours minimum in AH beyond freshman level.

## SCHOOL OF DANCE

Shirley Wimmer, *Director*

The School of Dance offers an undergraduate major program leading to a bachelor of fine arts degree, which includes work in performance, choreography, the history and ethnology of dance and the teaching of dance. There are opportunities for production and experimentation with the Ohio University Dance Company, which tours the surrounding region. Additional experience

is gained from workshops and programs interrelated with the other schools in the College of Fine Arts. Visiting artists in residence during the year have choreographed works for student performances.

All new students intending to major in dance, both freshmen and transfer students, are expected to audition as part of the admission process. An appointment for an audition and information on proficiency requirements may be obtained by contacting the director of the School of Dance. Auditions which start in January should be scheduled well in advance.

There is a growing demand for qualified graduates of dance major curricula to teach at all educational levels. Within the school, majors are encouraged to gain practical teaching experience by assisting in class instruction. The curriculum provides a foundation upon which the student may build a career as a performer, choreographer, scholar or teacher; it also prepares him or her for advanced professional studies.

### Major in Dance—Suggested Plan

Freshman	
Danc 101-102-103.....	18
Danc 111.....	2
Zool 101.....	5
Eng.....	15
ThAr.....	5
Sophomore	
Danc 201-202-203.....	18
Danc 212.....	2
Zool 301.....	6
ThAr 215A.....	3
Electives*	16
Junior	
Danc 301-302-303.....	18
Danc 351, 352 or 353.....	4
Danc 441.....	2
Danc 240.....	1
Electives*	20
Senior	
Danc 401-402-403.....	18
Danc 442.....	2
Danc 240.....	1
Danc 471.....	4
Danc 480.....	2
Electives*	18

\*Electives will include courses in the following fields: anthropology, history, language other than English, philosophy, psychology, art studio, art history, comparative arts, film, music performance, music history, theater history.

## SCHOOL OF MUSIC

Clyde Thompson, *Director*

The curricula of the School of Music, culminating in the degree of bachelor of music, are designed to prepare students for careers in teaching, music therapy or performance. The School of Music makes provision for individual study in all branches of vocal and instrumental music and offers a wide range of courses in the fields of theory or composition, music history and literature, music education and music therapy. Opportunities are provided for individual participation in student recitals as well as for performing experience in the various organizations, such as the University Chorus, the University orchestras, the bands, Opera Workshop and Jazz Ensemble, as well as many small chamber ensembles.

Students who specialize in music education may elect either instrumental or vocal emphases. Upon completion of the requirements of the music education program, which includes the requirements of the State Board of Education, the student receives the Ohio Special Certificate for teaching music.

Students in the College of Arts and Sciences may major in one of two areas—music history and literature or music theory. The associate director of the School of Music should be consulted as the advisor of the curriculum.

All new students intending to major in music, both freshmen and transfer students, are expected to audition on their principal instruments or voice as part of the admission process. An appointment for an audition and information concerning proficiency requirements may be secured by contacting the director of the School of Music. Those students who are accepted but do not meet the required level of proficiency in their principal instruments may be placed in small classes with students of comparable ability until the required level of proficiency is reached.

A music theory placement examination is required of all new students. This examination is given each day during precollege counseling and on registration day at the beginning of each quarter. Specific times and locations for this examination may be obtained from the School of Music office.

The Ohio University School of Music is a member of the National Association of

Schools of Music. The requirements for entrance and for graduation as set forth in this Ohio University Bulletin are in accordance with the standards set up by the association.

Each music major is required to enroll in Performance Laboratory (Mus 90) as well as elect an appropriate performing group consistent with his or her major (see School of Music Handbook) during each quarter of residency at the University.

The following course plans outline a practical sequence of required courses which should be of assistance to the student in planning his or her course of study.

## Major in Piano

Freshman			
Elective . . . . . 4-5	Elective . . . . . 4-5	Elective . . . . . 4-5	
Humanities elect . . . . . 3	Humanities elect . . . . . 3	Humanities elect . . . . . 3	
Mus 101 (Theory) . . . . . 3	Mus 102 (Theory) . . . . . 3	Mus 103 (Theory) . . . . . 3	
Mus 341 (Piano) . . . . . 4	Mus 341 (Piano) . . . . . 4	Mus 341 (Piano) . . . . . 4	
Perf group . . . . . 1	Perf group . . . . . 1	Perf group . . . . . 1	
Mus 90 (Perf Lab) . . . . . 0	Mus 90 (Perf Lab) . . . . . 0	Mus 90 (Perf Lab) . . . . . 0	
Sophomore			
Mus 201 (Harmony) . . . . . 3	Mus 202 (Harmony) . . . . . 3	Mus 203 (Harmony) . . . . . 3	
Mus 204 (SS & Dict) . . . . . 3	Mus 205 (SS & Dict) . . . . . 3	Mus 206 (Form & An) . . . . . 3	
Mus 321 (Hist) . . . . . 3	Mus 322 (Hist) . . . . . 3	Mus 323 (Hist) . . . . . 3	
Mus 341 (Piano) . . . . . 5	Mus 341 (Piano) . . . . . 5	Mus 341 (Piano) . . . . . 5	
Perf group . . . . . 1	Perf group . . . . . 1	Perf group . . . . . 1	
Mus 90 (Perf Lab) . . . . . 0	Mus 90 (Perf Lab) . . . . . 0	Mus 90 (Perf Lab) . . . . . 0	
Junior			
Mus 451 (Acc.) . . . . . 1	Mus 451 (Acc.) . . . . . 1	Mus 451 (Acc.) . . . . . 1	
Theory Elect . . . . . 2	Theory Elect . . . . . 2	Theory Elect . . . . . 2	
Mus 341 (Piano) . . . . . 5	Mus 341 (Piano) . . . . . 5	Mus 341 (Piano) . . . . . 5	
Elective . . . . . 3	Elective . . . . . 3	Elective . . . . . 6	
Perf group . . . . . 1	Perf group . . . . . 1	Perf group . . . . . 1	
Mus 90 (Perf Lab) . . . . . 0	Mus 90 (Perf Lab) . . . . . 0	Mus 90 (Perf Lab) . . . . . 0	
Mus 421* (Lit of Piano) . . . . . 3	Mus 421* (Lit of Chmbr Mus) . . . . . 3	Recital . . . . . 0	
Senior			
Mus 452 (Pedagogy) . . . . . 2	Mus 453 (Pedagogy) . . . . . 2	Mus 454 (Pedagogy) . . . . . 2	
Mus 341 (Piano) . . . . . 6	Mus 341 (Piano) . . . . . 6	Mus 341 (Piano) . . . . . 6	
Elective . . . . . 6	Elective . . . . . 6	Elective . . . . . 6	
Perf group . . . . . 1	Perf group . . . . . 1	Perf group . . . . . 1	

Mus 90 (Perf Lab) . . . . . 0	Mus 90 (Perf Lab) . . . . . 0	Mus 90 (Perf Lab) . . . . . 0	
		Recital . . . . . 0	

\*May be taken in the junior or senior year, and should include 421B (Lit of Piano Mus) and 421C (Lit of Chmbr Mus).

## Major in Voice

Freshman			
Ital 111 . . . . . 4	Ital 112 . . . . . 4	Ital 113 . . . . . 4	
InCo 101 . . . . . 3	Elective . . . . . 3	Elective . . . . . 3	
Mus 101 . . . . . 3	Mus 102 . . . . . 3	Mus 103 . . . . . 3	
Mus 340 . . . . . 4	Mus 340 . . . . . 4	Mus 340 . . . . . 4	
Mus 341 or Mus 141 . . . . . 1	Mus 341 or Mus 142 . . . . . 1	Mus 341 or Mus 143 . . . . . 1	
Perf group . . . . . 1	Perf group . . . . . 1	Perf group . . . . . 1	
Mus 90 . . . . . 0	Mus 90 . . . . . 0	Mus 90 . . . . . 0	

Sophomore			
Mus 201 . . . . . 3	Mus 202 . . . . . 3	Mus 203 . . . . . 3	
Mus 204 . . . . . 3	Mus 205 . . . . . 3	Mus 206 . . . . . 3	
Mus 340 . . . . . 4	Mus 340 . . . . . 4	Mus 340 . . . . . 4	
Mus 341 or Mus 241 . . . . . 1	Mus 341 or Mus 242 . . . . . 1	Mus 341 or Mus 243 . . . . . 1	
Perf group . . . . . 1	Perf group . . . . . 1	Perf group . . . . . 1	
Mus 90 . . . . . 0	Mus 90 . . . . . 0	Mus 90 . . . . . 0	
Ger 111 . . . . . 4	Ger 112 . . . . . 4	Ger 113 . . . . . 4	

Junior			
Mus 321 . . . . . 3	Mus 322 . . . . . 3	Mus 323 . . . . . 3	
Fr 111 . . . . . 4	Fr 112 . . . . . 4	Fr 113 . . . . . 4	
Theory/Mus Lit Elective . . . . . 3	Theory/Mus Lit Elective . . . . . 3	Theory/Mus Lit Elective . . . . . 3	
Mus 340 . . . . . 4	Mus 340 . . . . . 4	Mus 340 . . . . . 4	
Perf group . . . . . 1-3	Perf group . . . . . 1-3	Perf group . . . . . 1-3	
Mus 90 . . . . . 0	Mus 90 . . . . . 0	Mus 90 . . . . . 0	
		Recital . . . . . 0	

Senior			
Mus 421A . . . . . 3	Mus 421F . . . . . 3	Elective . . . . . 8	
Mus 340 . . . . . 4	Mus 340 . . . . . 4	Mus 340 . . . . . 4	
Mus elective . . . . . 3	Mus elective . . . . . 3	Mus elective . . . . . 3	
Perf group . . . . . 1-3	Perf group . . . . . 1-3	Perf group . . . . . 1-3	
Mus 90 . . . . . 0	Mus 90 . . . . . 0	Mus 90 . . . . . 0	
Elective . . . . . 5	Elective . . . . . 5	Recital . . . . . 0	

Demonstration of piano proficiency is required.

## Major in Organ

Freshman			
Eng . . . . . 5	Eng . . . . . 5	InCo 101 . . . . . 3	
CA 117 . . . . . 3	CA 118 . . . . . 3	CA 119 . . . . . 3	
Mus 101 . . . . . 3	Mus 102 . . . . . 3	Mus 103 . . . . . 3	
Mus 343 . . . . . 4	Mus 343 . . . . . 4	Mus 343 . . . . . 4	
Perf Group . . . . . 1	Perf Group . . . . . 1	Perf Group . . . . . 1	
Mus 90 . . . . . 0	Mus 90 . . . . . 0	Elective . . . . . 1	
		Mus 90 . . . . . 0	

Sophomore			
Mus 201 . . . . . 3	Mus 202 . . . . . 3	Mus 203 . . . . . 3	
Mus 204 . . . . . 3	Mus 205 . . . . . 3	Mus 206 . . . . . 3	
Mus 321 . . . . . 3	Mus 322 . . . . . 3	Mus 323 . . . . . 3	
Mus 340 or 147 . . . . . 1	Mus 340 or 148 . . . . . 1	Mus 340 or 149 . . . . . 1	
Mus 343 . . . . . 4	Mus 343 . . . . . 4	Mus 343 . . . . . 4	
Perf Group . . . . . 1	Perf Group . . . . . 1	Perf Group . . . . . 1	
Mus 90 . . . . . 0	Mus 90 . . . . . 0	Mus 90 . . . . . 0	

Junior			
Mus 402	3	Mus 403	3
Mus 455	3	Mus 456	3
Mus 401	3	Mus 343	4
Mus 343	4	Perf Group	1
Perf Group	1	Elective	4
Mus 90	0	Mus 90	0
		Mus 497	0
Senior			
Mus 498	4	Mus 498	4
Mus 421A		Mus 421E	3
or D	3	Mus 343	4
Mus 343	4	Mus Theory	4
Mus Theory		Elect	3
Elect	3	Perf Group	1
Perf Group	1	Mus 90	0
Mus 90	0	Mus 90	0
		Mus 497	0

Major in Orchestral Instruments

Strings, Woodwinds, Brass or Percussion

Freshman			
Elective	3	Elective	3
Humanities		Humanities	
elect	3	elect	3
Mus 101	3	Mus 102	3
Maj. Instr	4	Maj. Instr	4
Mus 341 or		Mus 341 or	
141	2	142	2
Band/orch	1	Band/orch	1
Mus 90	0	Mus 90	0
Chamber		Chamber	
music*	1	music*	1
Sophomore			
Mus 201	3	Mus 202	3
Mus 204	3	Mus 205	3
Mus 321	3	Mus 322	3
Maj. Instr	4	Maj. Instr	4
Mus 341 or		Mus 341 or	
241	2	242	2
Band/orch	1	Band/orch	1
Mus 90	0	Mus 90	0
Chamber		Chamber	
Music	1	Music	1
Junior			
Humanities		Humanities	
elect	3	elect	3
Mus 455	3	Mus 457	3
Th/Mus Lit		Th/Mus Lit	
elect	3	elect	3
Maj. Instr	4	Maj. Instr	4
Band/orch	1	Band/orch	1
Mus 90	0	Mus 90	0
Chamber		Chamber	
Music	1	Music	1
Senior			
Electives	7	Electives	5
Maj. Instr	6	Mus 458	1
Band/orch	1	Maj. Instr	6
Mus 90	0	Mus 459	2
Chamber		Band/orch	1
Music	1	Mus 90	0
		Chamber	
		Music	1
		Mus 497	0

Major in Theory or Composition

Freshman			
Eng	5	Eng	5
CA 117	3	CA 118	3
Mus 101	3	Mus 102	3
Principal		Principal	
Instr	2	Instr	2
Class Piano		Class Piano	
(Sec. Instr.		(Sec. Instr.	
1) <sup>1</sup>	2	1) <sup>1</sup>	2
Perf group	1	Perf group	1
Mus 90	0	Mus 90	0
Sophomore			
Mus 201	3	Mus 202	3
Mus 204	3	Mus 205	3
Elective	3	Elective	3
Principal		Principal	
Instr	2	Instr	2
Class Piano		Class Piano	
(Sec. Instr.		(Sec. Instr.	
1) <sup>1</sup>	2	1) <sup>1</sup>	2
Perf group	1	Perf group	1
Mus 90	0	Mus 90	0
Junior			
Mus 321	3	Mus 322	3
Mus 402 <sup>2</sup>	3	Mus 403 <sup>2</sup>	3
Mus 407 <sup>3</sup>	3	Mus 408 <sup>3</sup>	3
Mus 310	2	Mus 311	2
Elect	3	Elect	3
Princ.		Princ.	
Instr	2	Instr	2
Perf group	1	Perf group	1
Mus 90	0	Mus 90	0
Senior			
Mus 304	3	Mus 305	3
Mus 401	3	Mus 421	3
Mus 421	3	Mus 498 <sup>3</sup>	2
Mus 498 <sup>3</sup>	2	Mus 411 <sup>4</sup>	2
Mus 410	2	Elect	6
Elect	3	Perf group	1
Perf group	1	Mus 90	0
Mus 90	0	Mus 90	0
Major in Music History and Literature			
Freshman			
Eng	5	Eng	5
CA 117	3	CA 118	3
Mus 101	3	Mus 102	3
App-Prin	2	App-Prin	2
App-Sec	1	App-Sec	1
Perf group	1	Perf group	1
Mus 90	0	Mus 90	0
		Elective	3
Sophomore			
Mus 201	3	Mus 202	3
		Mus 203	3

\*12 quarters chamber music required for string majors, 9 quarters for other instrumentalists.

<sup>1</sup>If piano is the principal instrument, the secondary instrumental requirement may be satisfied by one of the following methods:  
A. By taking applied lessons on an instrument other than piano for 6 quarters (1 hr per quarter)  
B. By taking 3 quarters (2 hours per quarter) of either String Methods and Materials 261, or Wind and Percussion Methods and Materials 263, or a combination of both.  
<sup>2</sup>Offered in alternate years.  
<sup>3</sup>Required of theory majors.  
<sup>4</sup>Required of composition majors.

Mus 204	3	Mus 205	3	Mus 206	3
Mus 321	3	Mus 322	3	Mus 323	3
Elect	3	Elect	3	Elect	3
App-Prin	2	App-Prin	2	App-Prin	2
App-Sec	1	App-Sec	1	App-Sec	1
Perf group	1	Perf group	1	Perf group	1
Mus 90	0	Mus 90	0	Mus 90	0

## Junior

Theory Elect	3	Theory Elect	3	Theory Elect	3
Mod Lang	5	Mod Lang	5	Mod Lang	5
Mus 421	3	Mus 421	3	Mus 421	3
App-Prin	2	App-Prin	2	App-Prin	2
Hist 101	3	Hist 102	3	Hist 103	3
Perf group	1	Perf group	1	Perf group	1
Mus 90	0	Mus 90	0	Mus 90	0

## Senior

Mus 421	3	Mus 421	3	Mus 421	3
CA	3	CA	3	CA	3
Mod Lang	5	Mod Lang	5	Mod Lang	5
App-Prin	2	App-Prin	2	App-Prin	2
Elect	3	Elect	3	Elect	3
Perf group	1	Perf group	1	Perf group	1
Mus 90	0	Mus 90	0	Mus 90	0

Demonstration of piano proficiency is required.

## Major in Music Education

## Instrumental Emphasis

## Freshman

Mus 101	3	Mus 102	3	Mus 103	3
App-Prin	2	App-Prin	2	App-Prin	2
App-Sec	1-2	App-Sec	1-2	App-Sec	1-2
Perf group	1	Perf group	1	Perf group	1
Mus 90	0	Mus 90	0	Mus 90	0
Psy 101	5	Eng/Lang	4-5	InCo 103	4
Elective	4-5	Elect	4-5	Soc Sci	4-5

## Sophomore

Mus 201	3	Mus 202	3	Mus 203	3
Mus 204	3	Mus 205	3	Mus 206	3
Mus 321	3	Mus 322	3	Mus 323	3
App-Prin	2	App-Prin	2	App-Prin	2
App-Sec	1-2	App-Sec	1-2	App-Sec	1-2
Perf group	1	Perf group	1	Perf group	1
Mus 90	0	Mus 90	0	Mus 90	0
Elective	4-5	EdSe 250	4	Mus 263	2

## Junior

Mus 261	2	Mus 261	2	Mus 261	2
Mus 263	2	Mus 263	2	Mus 263	2
Mus 147	1	Mus 148	1	Mus 149	1
Mus 455	3	Mus 364	3	App-Prin	2
App-Prin	2	Mus 457	3	Mus 90	0
Perf group	1	Perf group	1	Perf group	1
Mus 90	0	Mus 90	0	EdSe 351	5
EdC1 275	5	App-Prin	2	Math	4-5
EdPl 360	2	Elect	4		

## Senior

Mus 263	3	Mus 263	2	EdPl 461	6
Mus 363	3	App-Prin	2	EdPl 463	6
Mus 304	3	Perf group	1	EdPl 465	3
Mus 468	3	EdSe 480	3		
App-Prin	2	Sci	4-5		
Perf group	1	Elective	5-6		
Elective	4				

Demonstration of piano proficiency is required. See the School of Music Handbook for a complete statement concerning requirements.

Ohio certification requires particular minimums in certain areas of general education. Though these minimums are included in the suggested plan, other requirements in general education are not included here. It will be necessary to consult a music education counselor at least once a year in order to assure completion of all certification requirements.

The above course plan is only a suggested sequence of study. It does not constitute a contract.

## Major in Music Education

## Vocal Emphasis

## Freshman

Mus 101	3	Mus 102	3	Mus 103	3
App-Prin	2	App-Prin	2	App-Prin	2
App-Sec	1-2	App-Sec	1-2	App-Sec	1-2
Perf group	1	Perf group	1	Perf group	1
Mus 90	0	Mus 90	0	Mus 90	0
Psy 101	5	Eng/Lang	4-5	InCo 103	4
Elect	4-5	Elect	4-5	Soc Sci	4-5

## Sophomore

Mus 201	3	Mus 202	3	Mus 203	3
Mus 204	3	Mus 205	3	Mus 206	3
Mus 321	3	Mus 322	3	Mus 323	3
App-Prin	2	App-Prin	2	App-Prin	2
App-Sec	1-2	App-Sec	1-2	App-Sec	1-2
Perf group	1	Perf group	1	Perf group	1
Mus 90	0	Mus 90	0	Mus 90	0
Elect	4-5	EdSe 250	4	Elect	4-5

## Junior

Mus 304	3	Mus 364	3	Mus 365	3
Mus 455	3	Mus 366	3	Mus 367	3
EdC1 275	5	Mus 456	3	Mus 263	2
EdPl 360	2	App-Prin	2	EdSe 351	5
App-Prin	2	Perf group	1	App-Prin	2
Perf group	1	Mus 90	0	Mus 90	0
Mus 90	0	Math	4-5	Perf group	1

## Senior

Mus 261	2	Mus 261	2	EdPl 461	6
Mus 263	2	Mus 263	2	EdPl 463	6
Mus 468	3	EdSe 480	3	EdPl 465	3
App-Prin	2	App-Prin	2		
Perf group	1	Perf group	1		
Sci	4-5	Elect	5-7		

Piano principals in this program are required to take 1-3 hours of Music 451, Accompanying, during their junior or senior year. Demonstration of piano proficiency is required for both piano principals and vocal principals in the above program. See the School of Music Handbook for a complete statement concerning requirements.

Ohio certification requires particular *minimums* in certain areas of general education. Though these minimums are included in the suggested plan, other requirements in general education are not included in the suggested plan. It will be necessary to consult a music education counselor at least once each year to assure completion of all certification requirements.

The above course plan is only a suggested sequence of study. It does not constitute a contract.

**Major in Music Therapy**

Freshman				
Bot or	Psy 101	5	Soc 101	5
Zool 101 . . .	5 Mus 102	3	Mus 103	3
Mus 101	Major Instr	2	Major Instr	2
(Theory) . . .	3 Class Piano		Class Piano	2
Major Instr	2 142 . . .	2	Perf group	1
Class Piano	Perf group . . .	1	Intro to Mus	
141	2 Eng . . . . .	5	Ther . . .	2
Perf group	1 Mus 90	0	Mus 90	0
Eng 181	5			
Mus 90	0			

Sophomore				
Mus Harm.	Mus 202 . . .	3	Mus 203 . . . . .	3
201 . . . . .	Dict & SS		Mus 482 Exp	
Dict & SS	205 . . . . .	3	Res . . . . .	3
204 . . . . .	Class Voice		Class Voice	
Class Voice	148 . . . . .	1	149 . . . . .	1
147 . . . . .	Major Instr	2	Major Instr	2
Major Instr . . .	Class Piano		Class Piano	
Class Piano	242 . . . . .	2	243 . . . . .	2
241 . . . . .	Perf group	1	Perf group	1
Perf group	Zool 103		Speech, Sp.	
Mus 281 Soc &	Human		Sci elec . . . . .	3-4
Rec Instr . . .	Bio	4	Mus 90 . . . . .	0
Mus 90	Mus 90	0		

Junior					
Mus 321	3	Mus 322	3	Mus 323	3
Mus 381	3	Mus 382	3	Mus 383	3
Mus 455	3	Mus 366	3	Mus 367 (or	
Psy 332 (abn)	5	HPER		468)	3
Piano 341	1	(Dance)	3	Piano 341	1
Mus 263	2	Piano 341	1	Mus 90	0
Mus 90	0	Mus 263	2	Psy or SpEd	
		Electives	1	Elec	5
		Mus 90	0		

Senior					
Mus 304	3	Mus 481		Mus 263	2
Mus 261	2	Acous	3	Soc	4
Soc Elec	4	Psy or SpEd		Mus 480	
Psy or SpEd		Elec	5	(CI Exp)	4
Elec	5	Elect	6	Elect	4
Elect	2	Mus 489	1	Mus 489	1
Mus 489	1	Mus 90	0	Mus 90	0
Mus 90	0				

The music therapy curriculum is designed to meet the degree requirements of the School of Music and the National Association for Music Therapy.

In addition to the regular coursework, the student must complete the required course Music 480, Clinical Experience II (six-month internship) at an approved hospital for the training of music therapists before graduation. Upon graduation the student is eligible for listing with NAMT as a registered music therapist (RMT).

**SCHOOL OF THEATER**

Alvin S. Kaufman, *Director*

The School of Theater offers three undergraduate programs leading to the bachelor of fine arts degree: the Comprehensive

Major Program, the Professional Actor Training Program and the Professional Program in Production Design.

The comprehensive major is designed for those students who wish an extensive yet intensive program in all facets of theater. With the written approval of the Comprehensive Major Program advisor, a student may elect to pursue a course of study, under the comprehensive major, which will fulfill the requirements for a secondary teacher's certificate in the State of Ohio (see requirements listed under College of Education). The Professional Actor Training Program and the Professional Program in Production Design are designed to suit the needs and talents of those qualified and motivated students who wish to pursue careers in the professional theater.

Admission to the three programs is by audition/interview only and is gained usually upon completion of the sophomore year.

All students who major in theater follow approximately the same program during the first two years. At that point, the student petitions through his or her advisor for admission to one of the three programs. The faculty will then evaluate the student to determine qualifications to continue in the School of Theater. If the faculty acts favorably on the petition, the student will be granted admission to the program of his or her choice.

Students relocating from branch campuses, transferring from other institutions or wishing to enter advanced programs at the undergraduate level must make arrangements with the School of Theater for audition, interview, submission of portfolio or other appropriate screening to determine eligibility for the desired emphasis (comprehensive, acting, production design).

All students pursuing degree programs in the School of Theater are expected to achieve basic proficiency in production and performance skills consistent with their career objectives. Since production is, in essence, the laboratory or studio where the student applies the theoretical knowledge and skill gained in the classroom, all students are expected to participate each quarter in some form of production activity.

In order to accomplish this objective, all students are assigned to a training company on the basis of their proficiency and talent. All freshmen and transfer students not previously placed are automatically considered

to be members of the Ohio Company which meets on a regularly scheduled basis to explore the nature of theater dynamics through a variety of performance and production exercises. In addition, the Ohio Company provides an important orientation program for the student new to the School of Theater. Sophomore, junior and senior majors participate in one of several training companies designed to serve each student's particular level of training. Each company is primarily identified by its curricular offering. In addition, the sophomore, junior and senior companies function collectively as the producing unit for the six plays comprising the Major Series, the six plays of the Experimental Theater Series, the productions of the Laboratory Theater and the Playwrights' Workshop, and all other classroom projects requiring production personnel. Students are advanced from company to company as they demonstrate their mastery of subject material at the various training levels. All students are carefully screened by the faculty on a regular basis.

For their required participation in production, students receive academic credit. These credits are earned by registration in practicum courses. During the freshman year this requirement is satisfied through the Ohio Company. Throughout the sophomore, junior and senior years each theater major must complete a minimum of six practicum enrollments. Not more than 18 hours of practicum credit will count toward graduation. This credit must consist of at least one hour in ThAr 434 (Practicum in Production Design). The other practicum possibilities are ThAr 405 (Practicum in Management), ThAr 415 (Practicum in Acting) and ThAr 465 (Practicum in Directing). The number of credits that a student may receive for each practicum registration depends on the scope and responsibility of the assignment authorized by the faculty.

Each student new to the School of Theater is assigned to a faculty advisor who will assist the student with the scheduling of courses and also function as a counselor. Students should maintain frequent contact with their advisors concerning all matters pertaining to their programs and training.

Excellence in scholarship and performance is recognized by a number of annual awards, such as the Irma E. Voigt Memorial Award of Sigma Kappa to a senior girl for outstanding achievement in theater.

During the summer, the School of Theater offers training in musical theater and summer stock through the Ohio Valley Summer Theater in Athens and the Monomoy Theater, sponsored by Ohio University, at Chatham, Massachusetts, on Cape Cod.

Beginning with the academic year, 1973-74, Ohio University's School of Theater has been cooperating with other schools in the League of Professional Theater Training Programs in a joint effort called Concurrent Auditions. This concurrent audition procedure is designed to assist the serious applicant in meeting and auditioning for representatives from these various training programs during a set period of time in a particular city. We should emphasize that the purpose of these concurrent auditions is not to provide a joint viewing of an applicant by all schools involved, as each school will continue to administer its own particular audition and admissions procedure, but rather to provide the serious applicant a significant saving in time and expense required to audition for several schools by allowing him or her to meet several audition processes in one city during a one- or two-day period. Further information concerning Concurrent Auditions may be obtained by writing the director of the School of Theater.

### **Theater Core Requirement and Directed Electives**

Students intending to major in the School of Theater should enroll for ThAr 115A, B, C (Voice for the Stage), ThAr 116A, B, C or 117A, B, C (Body Training), ThAr 130A, B, C (Technical Production) and ThAr 114 A, B, C (Ohio Company) during their freshman year. These courses comprise the freshman theater core of ten hours per quarter.

Additionally, first-year students should take one course selected from the English 100 series and begin one or more sequences necessary to satisfy the directed elective requirements—not fewer than eight quarter hours in four of the following five groups:

**Group One**—modern language, philosophy, great books, English language and literature (300 level or above).

**Group Two** — physics, chemistry, geology, mathematics, physical science, zoology, botany, astronomy.

**Group Three**—sociology, anthropology, economics, geography, government, history, psychology, business administration, accounting, education, law.

**Group Four** — applied music, dance (theory, practice and technique), art (practice and technique of drawing, painting, motion pictures, sculpture, photography, etc.), and certain courses in health, physical education and recreation.

**Group Five**—historical and theoretical courses in motion picture, art, music, dance, architecture, photography, comparative arts, interpersonal communication, radio-television, journalism, hearing and speech sciences.

Beyond the English 100-level requirement, School of Theater majors are required to complete three additional English courses at the 200 level or above. These may not be used to satisfy the requirements for Group One of the directed electives.

### Core Requirements for All Theater Majors

ThAr 114A, B, C: Ohio Company	9
ThAr 115A, B, C: Voice for the Stage	6
ThAr 116A, B, C or 117A, B, C:	
Body Training	6
ThAr 130A, B, C: Technical Production	9
ThAr 215 or 215A: Principles of Acting	3
ThAr (or InCo) 220: Oral Interpretation	3
ThAr 337: Basic Makeup	1
ThAr 370, 371, 372: Theater History	9
ThAr 460: Directing I	3
ThAr 470 to 477: (two history courses)	8
Eng 100 level	5
Eng 200 level or above (three courses)	9 to 15
Directed Electives	32
Theater Practicum	6 to 18
<b>Total</b>	<b>109 to 127</b>

### Specialized Program Requirements

Beyond the core requirements listed above, each student must take the following additional courses for the approved area of specialization (selected at the end of the sophomore year).

#### *The Comprehensive Program*

ThAr 240: Introduction to Child Drama	2
ThAr 315 or 315A: Intermediate Acting I	3
ThAr 316 or 316A: Intermediate Acting II	3
ThAr 330A, B, C: Stagecraft	9
ThAr 350: Playwriting	5
ThAr 461: Directing II	3
ThAr 433 or 433A: Scene Design	4
One course in Theater and Drama from the 470 series	4
Theater Arts and related electives with written approval of the program advisor	27
<b>Total Advanced Theater Credits</b>	<b>60</b>

#### *The Professional Actor Training Program*

ThAr 311A, B, C: Stage Speech	6
ThAr 312A, B, C: Stage Movement	6
ThAr 315: Intermediate Acting I	3
ThAr 316: Intermediate Acting II	3
ThAr 438: Advanced Makeup	3
ThAr 310A, B, C: Advanced Acting Studio	24
ThAr 410A, B, C: Advanced Acting Studio	24
<b>Total Advanced Theater Credits</b>	<b>69</b>

#### *The Professional Program in Production Design*

ThAr 330A, B, C: Stagecraft	9
ThAr 332: Theatrical Rendering	3
ThAr 333: Basic Theater Design	4
ThAr 430: Adv. Stagecraft	4
ThAr 438: Adv. Makeup	3
ThAr 431: Theory of Lighting	4
ThAr 432: Props and Special Effects	4
ThAr 433: Scene Design	4
ThAr 435: History of Costume	4
ThAr 436: Costume Design	4
Theater Arts and related electives with written approval of program advisor	17
<b>Total Advanced Theater Credits</b>	<b>60</b>

A complete list of undergraduate courses offered by the School of Theater is listed in the appropriate alphabetical location at the rear of this bulletin. Certain theater courses are offered in *even* or *odd* academic years. An *even* academic year starts in a year with an even number.



## Additional Curricula and Programs

### CENTER FOR AFRO-AMERICAN STUDIES

James F. Barnes, *Dean*

Ohio University established the Black Studies Institute in the fall of 1969 as an important part of its effort to alter the trend of higher education as it deals with the black experience. One year later the department expanded and the official name was changed to the Center for Afro-American Studies with the Black Studies Institute being only one of the many programs within the center.

#### The Black Studies Institute

The Black Studies Institute offers an academic program leading to a bachelor's degree. The program provides a black perspective on such disciplines as history, psychology, sociology, education and the humanities. Courses of study are designed to meet the individual student's needs. Each student with the guidance of an advisor, plans a course of study which will follow his or her interests. A flexible independent studies plan permits the student to do research or serve an internship, either on or off the campus.

Because of an increased sensitivity to the black person in contemporary society, the student—black or white—should be prepared upon graduation to be a catalyst for change in his or her community.

**Undergraduate** admission to the institute may be made during the freshman, sophomore, junior or, in exceptional cases, senior year. Because the degree programs are highly individualized, early enrollment is advised. When the application is returned, an interview is set up with an institute staff member to determine if the student is suited to the academic program.

#### The Resource Center

The Resource Center provides services to meet the needs of the black community. A comfortable room, supplied with magazines, newspapers and music, offers students a place to lounge in their free hours. The Resource Center also provides academic, occupational, financial and personal counseling, and a free tutoring service. With the help of students, a newspaper "Afro-American Affairs," is published bimonthly. The center sponsors and organizes social gatherings, workshops, guest speakers, symposia and performing groups for the entire community.

Except for a full-time staff member to coordinate projects, the Resource Center is operated by students, thereby providing a variety of jobs for students who wish to work. The success of the Resource Center, therefore, depends upon the enthusiasm of the student-workers.

#### Requirements for Degree in Afro-American Studies

The bachelor of science degree in Afro-American Studies is granted upon completion of the Ohio University graduation requirements of 180 quarter hours, which includes at least 45 hours in black studies. A student must have a minimum point-hour ratio of 2.0 (C) on all hours attempted to qualify for graduation. In addition, the student must successfully complete:

- A. Ten hours selected from among the following:
  - Introduction to Afro-American History
  - Afro-American Socio-Economic Development
  - The Black Community in the 20th Century
  - History and Psychology of Colonialism
- B. Five hours of independent study. The nature of this study is determined by

the student and the major advisor, usually in the junior or senior year.

The heart of our program is the advising process. Each student works closely with a faculty or staff member whose capabilities are related to the student's academic interests.

## THE HONORS TUTORIAL COLLEGE

Ellery Golos, *Director*

The Honors Tutorial College attempts to provide at Ohio University the most challenging education possible both to the academically gifted and to the creative student. It does so through the Tutorial Program and the Departmental Honors Program.

## THE TUTORIAL PROGRAM

The program is modeled after the tutorial system used at Oxford and Cambridge Universities. Although some colleges and universities have adopted particular features of this system, at this time in the United States, only Ohio University offers a degree-granting program which incorporates all of the essential features of the tutorial system.

### Selective Studies

Tutorial studies are *not* remedial. On the contrary, the program is open only to highly qualified and highly motivated students who are already committed to one of the areas of study listed below.

### Participating Departments

Fourteen departments are currently participants in the program. *Tutorial studies are available only for students majoring in one of these areas.* They are botany, chemical engineering, chemistry, economics, English, government, history, mathematics, mechanical engineering, modern languages (French, German, Russian and Spanish), philosophy, physics, psychology and social work. Each has a well-established graduate program, which assures excellent faculty, library and laboratory facilities.

Students preparing for a career in law may also major in any one of these areas,

although the departments of economics, government, history and philosophy have designed special pre-law programs.

Students preparing for a career in medicine are recommended to enroll in either botany or chemistry.

*A detailed description of each departmental program is available upon request.*

## A One-to-One Learning Experience

When a student has chosen an area, a director of studies is assigned to coordinate the program. In addition to mapping out a curriculum, the director of studies will assign individual tutors as the student progresses through the various subdivisions of the major area of concentration. The tutors are full-time faculty members who have voluntarily committed themselves to being tutors. In the tutorial the student meets individually with his or her tutor to report on the weekly assignment.

## Individual Programs

Each student together with the director of studies designs a program best suited to the student's needs. However, the program is a highly supervised and structured one rather than a free-wheeling series of independent study projects.

## Admission

Excellent academic credentials are required of each applicant. Standardized test scores, high school record and recommendations from teachers and counselors will be used to select participants in the program. All students are required to fill out the standard application for admission to Ohio University. In addition, the student must be accepted by the department of his or her choice. Each department accepts between five and ten students each year, so whether or not a qualified student is accepted will depend upon the number of qualified applicants to the department in that year.

## Goals of the Program

To provide an educational mode which enhances the learning process by:

- Replacing lecturing in the student's major by tutorial.
- Permitting each student, under guidance, to proceed at an optimum pace.

- Exposing the student, in a one-to-one relationship, to an accomplished scholar in a field of study.
- Establishing a living/learning environment in a special residence hall.

To provide qualified students with an alternative to the cafeteria style of curricula common to most undergraduate programs.

To provide the career-oriented student with the best possible preparation for later graduate work in the shortest possible time.

### Examinations

For the tutorial system to work at its best, the student/tutor relationship must be free from the pressures of examinations. Therefore, examinations will be prepared and graded by a departmental committee. Because of the close relationship between student and tutor, the tutor will know long before an examination is scheduled whether or not the student will be able to pass it. Examinations are given only when the tutor feels that the student has mastered the material.

The purpose of giving comprehensive examinations is to force the student to do, over a period of a year, what he or she has had to do on a smaller scale for the weekly tutorial, namely, to assimilate knowledge and to consider it again in the light of other knowledge and experience. The existence of comprehensive examinations does not prohibit the tutor, at any time, from testing a student's grasp of ideas, or devising some basis upon which to evaluate a student's progress. Indeed, each tutor will be expected to submit a quarterly evaluation which will permit us to discover problems soon enough to minimize their impact on the student's further education.

### Competency-Based Degree Requirements

One of the essential features of the tutorial program is that it substitutes measurement of competency for a mere accumulation of credit hours or residence requirements. There is no fixed number of class hours required for graduation and no specific distribution requirements by the college. In order to graduate, a student must satisfy departmental requirements. This satisfaction consists of passing a set of comprehensive examinations and showing competency in required fields of collateral

studies. Thus, it is quite possible for the student to complete undergraduate work and receive a degree within two or three years. The degree is a bachelor of science or a bachelor of arts in (major area of study).

### Essentially a Three-Year Degree

The programs are designed so that in most cases a student will graduate at the end of three years, at which time preparation for further study would be at the level of many students entering their second year of graduate work.

### Residential Life

Ohio University presently requires that all freshmen and sophomores live in University dormitories. Students in the tutorial program will be invited to live in the Honors Tutorial House (Hoover House) on the New South Green. However, they may choose to live in one of the other University dormitories.

## DEPARTMENTAL HONORS PROGRAM

Undergraduate students enrolled in any of the colleges of Ohio University (except students in the Bachelor of General Studies Program in University College) may choose to do departmental honors.

The student must submit a satisfactory thesis in his or her major. The thesis may be expository, creative or of a research nature, and may be written by registering for up to 15 hours of study under the departmental thesis advisor. In addition to the thesis, in order to graduate with departmental honors, a student must satisfy the general college requirements, the departmental major requirements and any additional honors requirements of his or her specific department.

The student should discuss the project with a faculty member in his or her major department before enrolling in departmental honors. When the project is approved by the department, he or she should then apply for departmental honors on the forms available at the Honors College (Chubb House/Honors House).

It is the responsibility of each student to make sure that the Honors College is informed of the nature of the project by submitting a brief synopsis, and to inform the

Honors College at least a month before graduation that he or she expects to graduate with "Honors in . . ." This is necessary in order that proper recognition may be given at commencement exercises. Please be sure to check the appropriate space, on the card accompanying the application for graduation, indicating that you are completing an Honors project.

## EXTENSION DIVISION

Curtis M. Johnson, *Director*

The Extension Division is the administrative umbrella under which the following offices operate: Continuing Education; Workshops, Conferences and Institutes, and Independent Study. The purpose of the Extension Division is to provide educational opportunities beyond the regular channels of the University by utilizing the resources of the University in nontraditional ways.

Classes, independent study courses, workshops and seminars are planned as requests and need indicate. Both credit and noncredit programs are offered. They may or may not lead to a degree, but students seeking admission to a degree program must be admitted through regular Ohio University procedures.

## CONTINUING EDUCATION

Continuing Education provides credit programs and courses at the graduate and undergraduate level as well as noncredit courses in such diverse areas as community development, technical and professional updating, liberal adult education and avocational or recreational programs. Even though the main thrust of the continuing education effort is toward meeting the needs of those individuals not already enrolled in the University, some programming is done to meet the regular students' needs.

Credit courses usually run according to the regular University academic quarter calendar, while noncredit programs run for whatever number of sessions are necessary to accomplish the purpose. Class sessions are generally held in the evening, although some daytime programs are scheduled. Faculty are especially selected for programs

which may be conducted both on campus and off campus at sites such as industrial plants or libraries. The standard University tuition fee is charged for any credit coursework; each noncredit program has a fee determined primarily by direct costs; whenever possible, public service activities are conducted at no cost to the participants. Admission to the University College or Graduate College is necessary only for credit courses; otherwise, anyone may usually register for a noncredit course.

Many of the continuing education programs are conducted in cooperation with outside agencies. Cooperative arrangements with Marietta College provide graduate courses in industrial and systems engineering and business administration; at Muskingum College undergraduate and graduate level courses are provided in electrical engineering. Graduate education programs also are offered at both locations. A credit program in economic education is conducted through the Center for Business and Economic Education at Ashland College. In addition, general academic coursework is provided for the nursing students at the school of nursing at Holzer Hospital, Gallipolis.

Each regional campus offers a noncredit real estate program which leads realtors and other enrollees to the Graduate Realtors' Institute (GRI) certificate. Credit courses leading to an associate degree in real estate are available at all campuses.

Other specialized programs have been organized in the areas of drugs, human sexuality, nursing education, secretarial training, law enforcement, training the mentally retarded and similar topics.

A continuing education director is located on the Athens campus and on each of the four regional campuses to explore and meet the needs of those specific communities and surrounding areas. Inquiries are welcome from any local business, industrial or civic group interested in utilizing University expertise or seeking aid from other resources.

## INDEPENDENT STUDY

The Independent Study Program provides a number of flexible ways by means of which any person capable of pursuing col-

lege-level work can earn college credit and, in certain cases, degrees without some of the limitations imposed by the traditional university structure. Independent Study allows an individual to learn at the time, place and rate suited to his or her own particular needs and provides the administrative format for the validation of nontraditional learning and life experience.

**Independent Study Courses** provide a highly structured method of independent study involving a tutorial relationship with a faculty member who guides the student's learning and monitors his or her progress. A detailed study guide prepared by the professor responsible for the course is sent to each student. This publication contains an overview of the course and directs the student's learning as the textbooks, cassette audio tapes, and other educational materials, devices and techniques are used. The student submits written assignments which are evaluated and commented on by the professor. Supervised examinations at the student's location are generally required.

**Independent Study Projects** can often be arranged in undergraduate courses not currently available as independent study courses. These arrangements are made on an individual basis and are contingent upon the approval of the department in which the course is offered and the availability of a qualified faculty member willing to direct the project. This is an unstructured form of independent study which can be used most effectively by the experienced student. The student and the faculty member agree upon the conditions which must be fulfilled for credit to be awarded. The work may include a variety of readings, papers, projects and examinations.

**Course Credit by Examination** represents the least structured method of obtaining college credit through the Independent Study Program. The participant receives at the time of enrollment a brief prospectus which describes the nature of the course; the textbooks and other materials required are listed and the nature of the supervised examination is explained. The student prepares for the examination without intermediate assistance from a faculty member. Letter grades and credit are awarded for successful performance on the examination. Failures are not reported and no penalty is incurred.

**The External Student Program** is available to students who wish to earn either the associate or bachelor's degree primarily through the various independent study options or in combination with residential work. Services offered through this program include evaluation of previous college-level work and program planning.

**The College Level Examination Program (CLEP)** is especially useful for the adult who has had no previous college experience but whose work or life experience may be the basis for college credit. It is also useful for the beginning college student who has had an enriched high school experience. The program is sponsored by the College Entrance Examination Board and the Independent Study Office serves as an open test center administering examinations by appointment on Saturday of the third week of each month. University policy currently allows the awarding of up to 45 quarter hours of credit for the general examinations as well as appropriate credit for the subject examinations. Detailed information is available in a special publication which can be supplied on request.

**The Advanced Placement Program** of the College Entrance Examination Board is administered through the Independent Study Office. Most departments of the University allow credit for successful performance on the Advanced Placement Examinations. Detailed information is available on request.

Detailed information about all of the Independent Study programs as well as a listing of courses offered is contained in the Independent Study Bulletin available from the Independent Study Office, Tupper Hall 302.

## WORKSHOPS, CONFERENCES AND INSTITUTES

The major responsibility of the Workshops, Conferences and Institutes Office is to help the various schools and departments within the University to plan, organize and conduct noncredit programs and credit courses outside the regular University pattern. To accomplish this, the office makes available a coordinator who serves as a consultant to anyone wanting assistance in plan-

ning a conference, short course or similar educational venture.

In addition, the office plans and develops its own programs and courses to meet the educational needs of the public at the local, state and national levels. The administrative services of the Workshops, Conferences and Institutes Office include budgeting, handling of financial details and promotion, supplies, materials, equipment, dining arrangements and other facilities.

It is also the responsibility of the Workshops, Conferences and Institutes Office to serve as the University's contact with outside organizations and agencies, such as Buckeye Boys State and the Rainbow Girls Assembly, which desire to contract for use of the staff or facilities of the University for educational programs.

Approximately 120 workshops, conferences and institutes are conducted on the Athens campus each year, including such diverse programs as the Saturday Morning Art Workshop for Children, Acid Mine Drainage Conference, Research and Development Managers Institute, Ohio School of Banking, Credit Union Institute, band camps, annual publications and forensics workshops for high school students and summer short courses for teachers.

## **INTERNATIONAL STUDIES**

### **CENTER FOR INTERNATIONAL STUDIES**

Ohio University established the Center for International Studies in 1964 to provide students and citizens of the United States and other countries with opportunities to obtain knowledge about peoples and cultures of Africa, Asia and Latin America. This endeavor is founded on the broad belief that an appreciation of different values and institutions increases understanding between peoples, enriches the lives of individuals and assists all in forming opinions on issues which affect the growing world community.

The center coordinates teaching, research and publications activities through three main programs related to the three world regions—the African Language and Area Center, the Latin American Studies Program and the Southeast Asia Studies

Program. These programs assist in the development of courses and the expansion of library materials. They support visiting lecturers, film series, seminars and colloquia throughout the year. More than 70 scholarly papers relating to Africa and Southeast Asia have appeared in the center's publication program. An East Asia Committee also functions with some modest support from the center.

### **Undergraduate Certificate**

The center offers certificates in African, Asian and Latin American Studies and International Affairs to benefit students who wish to add an international dimension to their majors as well as those interested in international careers or planning graduate work in area studies. The proper notification is placed on the student's official transcript upon completion of the requirements. Requirements for the certificate are listed under International Studies in the Courses of Instruction section of this catalog.

### **Languages and Literatures**

Ohio University offers courses in foreign languages relevant to Africa, Asia and Latin America, including Hausa and Swahili (Africa), Chinese and Indonesian/Malay (Asia) and Portuguese and Spanish (Latin America). These languages fulfill the language requirements in the College of Arts and Sciences. A detailed description of languages and literatures is under the Foreign Languages and Literatures section in the Courses of Instruction section of this catalog.

### **Courses**

Three area interdisciplinary courses are available through the center. These are Africa (InSt 113), Asia (InSt 103) and Latin America (InSt 121). These courses, which provide an introduction to the regions, satisfy social science requirements as well as certificate requirements. In addition, 65 faculty members teach over 150 courses each year that relate to African, Asian and Latin American studies through the various departments on campus.

Below is a list of principal courses relevant to African Studies, Asian Studies, Latin American Studies and International Affairs. Please check the complete course descriptions under the various departments.

**Anthropology**

- 270 Basic Concepts of Anthropology
- 348 Enculturation
- 350 Economic Anthropology
- 351 Political Anthropology
- 366 Cultures of the Americas
- 371 Ethnology
- 372 Cultures of the World
- 375 Culture and Personality
- 377 Peasant Communities
- 381 Cultures of Sub Saharan Africa
- 385 Cultures of Southeast Asia
- 386 Problems in Southeast Asian Anthropology
- 399 Readings in Anthropology
- 457 Anthropology of Religion
- 458 Women: A Cross-Cultural Survey
- 476 Culture, Contact & Change
- 478 Cultural Ecology
- 490 Independent Research in Anthropology
- 494 Seminar in Anthropology

**Art History**

- 330 The Arts of the Orient
- 331 Mexican Art
- 332 African Art
- 481 Readings

**Dance**

- 250 Ethnic Dance of Non-Western Cultures
- 351-352 Dance Cultures of the World

**Economics**

- 318 Latin American Economic History
- 418 Agricultural Development
- 420 Economic Development
- 421 African Economic Development
- 422 Chinese Economy
- 423 Economy of Latin America
- 424 Economics of Southeast Asia
- 425 Comparative Economic Systems
- 480 International Economics

**Education, International Comparative**

- 420 Comparative Cultures and Education
- 425A Education and Development in Africa
- 425B Education and Development in Asia
- 432 Perspectives in International Education
- 493 Readings

**English Language and Literature**

- 306A, B, C Studies in Oriental Literature
- 441 Studies in Comparative Literature

**Finance**

- 455 International Finance

**Foreign Languages and Literatures**

- African and Asian Languages
- 111-2-3 Elementary Chinese, Hausa, Indonesian/  
Malay and Swahili
- 211-2-3 Intermediate Chinese, Hausa, Indonesian/  
Malay and Swahili

- 311-2-3 Advanced Chinese, Hausa, Indonesian/  
Malay and Swahili

**Modern Languages**

- 111-2-3 Elementary Portuguese and Spanish
- 211-2-3 Intermediate Portuguese and Spanish
- 241 Literature and Interpretation—  
Spanish or Portuguese
- 349 Spanish-American Civilization and Culture
- 443-4 Survey of Spanish-American Literature
- 447 Themes from Latin-American Prose
- 448 Contemporary Spanish-American  
Literature

**Geography**

- 345 Southeast Asia: Cultural and Historical  
Geography
- 350 Geography of Northern Africa
- 351 Geography of Sub-Saharan Africa I
- 352 Geography of Sub-Saharan Africa II
- 355 Geography of South America
- 356 Geography of Middle America
- 490 Geographic Studies

**Government**

- 335 Politics of Developing Areas
- 341 Government and Politics of Africa
- 434A, B Government and Politics of Latin America
- 444 Race and Politics in Southern Africa
- 445 Government and Politics of Japan
- 446 Government and Politics of China
- 447A, B Government and Politics of Southeast  
Asia
- 448 Southeast Asian Political Systems
- 461 New States in World Politics
- 479 Latin American Political Thought
- 490 Seminar in Government
- 498 Problems in Government

**History**

- 323A Latin American Survey—Colonial Period
- 323B Latin American Survey—National Period
- 325 Inter-American Relations
- 341A Africa to the 17th Century
- 341B Africa from the 17th to the Late 19th  
Century
- 341C Africa from the Late 19th Century  
to the Present Day
- 345A Southeast Asia to 1820
- 345B Southeast Asia: 1820-1945
- 345C Post-War Southeast Asia:  
Independence Problems
- 346A Traditional China to 1800
- 346B Modern China
- 348A Traditional Japan
- 348B Modern Japan
- 350 Civilization of India
- 422 Latin America in 19th Century
- 423 Studies in Latin American History  
1750-1880
- 426A Recent Latin America: Argentina,  
Brazil and Mexico in 20th Century
- 426B Recent Latin America: Andean Nations  
in the 20th Century
- 426C Recent Latin America: Central America  
and the Island Republics in 20th Century
- 427 Studies in Recent Latin American History
- 436A North Africa in Modern Times

436B	North Africa since 1914
438A	History of East Africa
438B	History of West Africa
441	Studies in African History
442A	History of South Africa to 1899
442B	South Africa in Recent Times
444A	History of Malaysia
444B	Burma and Thailand in Modern Times
444C	History of Vietnam
444D	Chinese in Southeast Asia
445	Studies in the History of Southeast Asia
498	Special Problems

### International Studies

103	Modern Asia
113-4	Africa
121	Interdisciplinary Survey of Latin America

### Interpersonal Communications

448	Cross-Cultural Communication
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### Journalism

466	International Communications
467	Foreign Correspondence

### Management

484	International Comparative Management
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### Marketing

441	International Marketing
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### Philosophy

370	History of Religions: India
371	History of Religions: Southeast Asia
470	Indian Philosophy
471	Buddhist Philosophy
475	Chinese Philosophy

### Sociology

305	Readings in Sociology
407	Social Process and Change in Southeast Asia
408	Latin American Society

## OHIO PROGRAM OF INTENSIVE ENGLISH (OPIE)

Robert F. Dakin, *Director*

This program provides training in the English language designed to raise the proficiency of the nonnative speaker to a level that enables him or her to undertake academic study in an American college or university. Ten- and 20-week full-time intensive courses and a ten-week semi-intensive course

accommodate students at varying levels of beginning proficiency. After placement through initial proficiency tests, the student receives from two to five hours of daily classroom instruction and practice in oral and written English.

Regular admission to Ohio University makes students eligible for enrollment in this program if necessary. Students planning study at another college or university in the United States may be admitted as special students for study in the OPIE only. However, this admission is limited to students who can furnish proof of at least provisional admission to another institution.

For further information on fees and enrollment, write to Dr. Robert Dakin, Director, Ohio Program of Intensive English, Gordy Hall, Athens, Ohio 45701.

## REGIONAL CAMPUSES

Ohio University has four campuses, other than the Athens campus, located in Belmont County, Chillicothe, Lancaster and Zanesville, plus an academic center at Ironton.

The primary objective of the regional campuses is to offer a broad program at the freshman and sophomore levels. Each location has a full two-year curriculum in the arts and sciences, business administration and education, with selected courses in specialized fields such as engineering and fine arts. Students are eligible to receive the associate in arts degree after completing an approved two-year program of study. Available at some locations are specialized two-year programs leading to the associate in applied business or associate in applied science, designed as preparation for specific career opportunities in the immediate area. However, to pursue a baccalaureate degree a student must relocate to the Athens campus or transfer to another institution after completing a two-year program.

The admission policies for the regional campuses are the same as those of the Athens campus. Ohio high school graduating seniors who can commute from home to one of the regional campuses will be admitted as regular full-time or special part-time students. This decision is based on the high school transcript, Scholastic Aptitude Test or the American College Test, plus the Ohio high school recommendations. The regional campuses have no residence halls.



# Courses of Instruction



## Courses of Instruction

**CATALOG NUMBERS** — The catalog number indicates the student classification for which the course is primarily intended:

001-099 Noncredit courses

100-299 Undergraduate general program

300-499 Undergraduate advanced or specialized program

Within the College of Arts and Sciences the alphabetical catalog -number suffixes -I and -O are not used. Other alphabetical suffixes have specific meanings: -H, Honors College courses; -M, megasections; -T, tutorial courses; -X, study abroad courses.

**CREDIT** — Credit for a course is indicated by the number or numbers in parentheses following the course title. In a quarter course it may be expressed thus: (3), (1-3) or (2 or 3).

A course with one quarter hour of credit (1) is the equivalent of one recitation or two or more laboratory periods a week throughout a quarter.

In a course carrying variable credit, the credit may be expressed (1-4, max 8), indicating that one hour is the minimum and four hours the maximum amount of credit allowed for the course in one quarter. However, a student may enroll in the course any number of times and for any number of credit hours, within the quarter limit,

provided the total registration for the course does not exceed eight hours.

Course prerequisites are indicated at the beginning of the course description, following the abbreviation "Prereq." A student who has any doubts if he or she has fulfilled prerequisites, due to changes in the numbering system over the past several years, should check the course titles and consult with his or her advisor and the office of the dean. A student who completes an advanced course may not subsequently enroll in a prerequisite course for credit.

If a course is offered for other than the normal academic year of fall, winter and spring quarters, this fact is noted in parentheses after the prerequisite. Such courses are offered only in the quarters specified.

**INSTRUCTORS** — The listing is as of May, 1975. Unless otherwise indicated in italics following the quarter specification in the course description, the course is taught by the staff of the department.

**FEE** — When a course requires a private instructional fee, the amount is stated in the course description.

**CLASS SCHEDULE** — A Schedule of Classes is available each quarter from the Office of Registration.

## ACCOUNTING

The accounting major is designed to equip the student to enter the profession of accountancy at the beginning level in public or industrial accounting or in governmental or nonprofit institutions.

In addition to the BBA degree requirements, a student majoring in accounting must complete 24 hours of accounting courses at the 300-400 level including 303, 304, 305, 310 and two required courses outside the accounting area, BusL 357 and QM 401.

### 101 Managerial Accounting (4)

Uses of accounting information for making managerial decisions.

### 102 Managerial Accounting (4)

Prereq: 101. Continuation of 101. See 101 for description.

### 303 Accounting Principles and Procedures (4)

Prereq: 102. Fundamental accounting principles and practices emphasizing data accumulation using accounting techniques. Primarily intended for those specializing in accounting.

### 304 Intermediate Accounting (4)

Prereq: 303. Preparation and analysis of accounting statements; special problems in accounting for current, fixed and intangible assets, for liabilities and for corporate net worth; funds and reserves, and investments.

### 305 Intermediate Accounting (4)

Prereq: 304. Continuation of 304. See 304 for description.

### 310 Cost Accounting (4)

Prereq: 102. Manufacturing cost determination under job-order and process systems. Establishment of standard costs, budgets and analysis of variances.

### 317 Federal Income Taxes (4)

Prereq: 102 or perm. Introduction to federal income tax system for individuals, partnerships and corporations.

### 340 Advanced Cost Accounting (4)

Prereq: 310. Analysis of relevant costs for decision-making including nonmanufacturing costs. Current cost accounting topics.

### 345 Accounting Systems and Internal Control (4)

Prereq: 303 and QM 200. Systems approach to data collection, classification and dissemination.

### 347 Advanced Federal Income Taxes (4)

Prereq: 317. Advanced tax problems of individuals, partnerships and corporations with emphasis on tax research and tax methodology.

### 406 Advanced Accounting (4)

Prereq: 305. Problems peculiar to partnerships, receiverships, fiduciaries, installment sales, consignments, insurance, estates and trusts; compound interest applications; governmental accounting; branches, consolidations, and mergers and foreign exchange.

### 407 Advanced Accounting (4)

Prereq: 305. Seminar in current topics.

### 451 Auditing Principles (4)

Prereq: 24 hrs of accounting. Purposes and scope of audits and examinations; audit principles and procedures; audit reports and certificates.

### 491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in accounting area.

### 497 Independent Research (1-15)

Prereq: perm. Research in selected fields of accounting under direction of faculty member.

### 498 Internship (1-15)

Prereq: perm.

## AEROSPACE STUDIES

The Department of Aerospace Studies offers two programs leading to a commission as a second lieutenant in the United States Air Force. The four-year program is designed for students who can begin Air Force ROTC with the fall quarter of their freshman year and complete aerospace studies requirements by their date of graduation. Students taking the four-year program begin by enrolling in ASi 100- or 200-level courses, whichever is scheduled in the course catalog. The ASi 100 and 200 courses are taught on an alternate-year basis. Out-of-sequence courses can be scheduled by arrangement with the Department of Aerospace Studies.

The two-year program is designed for students unable to take Air Force ROTC during their first two years of college. It is similar to the last two years of the four-year program. Students interested in this program will not schedule Air Force ROTC during their first two years; however, they should consult the chairman of aerospace studies during their freshman year (or, in any event, not later than fall quarter of the sophomore year) for instructions regarding application for this program.

Entry into the Professional Officer Course (ASi 300 and 400 series) is based upon a "best qualified" selection process. Completion of the General Military Course (ASi 100 and 200 series) does not guarantee entry into the Professional Officer Course (POC), but makes one eligible to compete for acceptance into the POC. After

achieving commissioned status, the officer serves a minimum of four years active duty with the United States Air Force. For further information contact the Chairman of Aerospace Studies, Lindley Hall.

### 101 Strategic Offensive Forces (1)

(fall) Doctrine, mission and organization of the United States Air Force and U.S. strategic offensive forces. Offered in alternate yrs; available in 1975-76 academic yr by arrangement. 1 hr of academics and 1 hr of leadership lab each wk.

### 102 Strategic Defensive Forces (1)

(winter) U.S. defensive forces, their mission, function and employment of nuclear weapons, civil defense, aerospace and missile defense. Offered in alternate yrs; available in 1975-76 academic yr by arrangement. 1 hr of academics and 1 hr of leadership lab each wk.

### 103 U.S. General Purpose Forces (1)

(spring) U.S. general purpose and aerospace support forces, mission, resources and operation of tactical air forces, with special attention to limited war and review of Army, Navy and Marine general purpose forces. Offered in alternate yrs; available in 1975-76 academic yr by arrangement. 1 hr of academics and 1 hr of leadership lab each wk.

### 201 Development of Airpower (1)

(fall) History and development of airpower in the United States. Offered alternate yrs; available in 1975-76 academic yr. 1 hr of academics and 1 hr of leadership lab each wk.

### 202 Contemporary Aerospace Power (1)

(winter) Covers Air Force concepts, doctrine and employment, how technology has affected growth and development of air power. Offered alternate yrs; available in 1975-76 academic yr. 1 hr of academics and 1 hr of leadership lab each wk.

### 203 Current and Future Employment of Aerospace Forces (1)

(spring) Changing mission of defense establishment; how air power is employed in military, nonmilitary and strategic operations. Offered alternate yrs; available in 1975-76 academic yr. 1 hr of academics and 1 hr of leadership lab each wk.

### 301 The Military and the American Society (3)

Prereq: GMC or perm. (fall) Study of military and professional soldier in a democratic society and the military as a socializing institution. Communicative skills and qualities of leadership.

### 302 Strategy and the Use of Force (3)

Prereq: 301 or perm. (winter) Evaluation of strategy and study of arms control, general and limited war. Continues communicative skills via student presentations and written reports. Emphasizes qualities and techniques of leadership.

### 303 American Defense Policymaking (3)

Prereq: 302 or perm. (spring) Organization and case studies in defense policymaking and bureaucratic decision making. Continues communicative skills and techniques of leadership.

### 401 Management—Concepts and Practices (3)

Prereq: 303 or perm. (fall) Human relations, personnel policies; junior officer administrative and staff responsibility; briefing for commissioned service. Continued leadership demonstration and practice. Continued development of communicative skills.

### 402 Military Professionalism and Leadership Theory (3)

Prereq: 401 or perm. (winter) Military professionalism, leadership theory, demonstration and practice. Development of communicative skills.

### 403 Military Justice System and Management Concepts and Practices (3)

Prereq: 402 or perm. (spring) Principles and functions of management. Continued leadership demonstration and practice. Military justice. Continued development of communicative skills.

## AFRICAN STUDIES

See International Studies.

## ANTHROPOLOGY

### General Emphasis

Anthropology provides a *broad framework* by which human activities, adaptations and changes may be interpreted meaningfully, both in time and in space. It is useful, not only to students of *social and environmental studies*, but to those interested in *journalism, film, photography, dance, linguistics, cross-cultural communications* and other areas.

### Preparation in Anthropology

Students who are interested in becoming professional anthropologists may prepare for graduate school in the Department of Sociology and Anthropology. The anthropology major program offers students training in the methods and results of cultural anthropology, physical anthropology and archaeology.

### Advising

Majors are *required* to select an *advisor* from among the anthropology faculty. As student interest shifts the advisor may be changed to reflect new interests. An advisor will aid in the design of an individualized course of study. Nonanthropology courses can be declared as anthropology

credit towards the major with permission from the advisor; for example an interest in ethnobotany may lead to botany courses counting as anthropology. Of the total hours required, however, no fewer than 36 hours must be in departmental anthropology courses. Students are encouraged to take courses *in fields* related to anthropology. Courses in botany, zoology, geology, geography, linguistics, international studies, mathematics, psychology, sociology, etc. may be recommended for students interested in particular anthropological specialities.

## Course Requirements

For a major in anthropology:

	Credit Hours
Anth 270, 371, 390, and 373	17
16 additional hours in anthropology courses at the 400 level	16
20 additional hours in anthropology courses at any level	20
<b>TOTAL</b>	<b>53</b>

### 270 Basic Concepts of Anthropology (5)

Basic concepts; nature of cultural diversity; evolution of sociocultural systems.

### 348 Enculturation (4)

Prereq: 270 and 371. Survey of ways of growing up in various cultures, emphasizing relationships between individual and culture.

### 350 Economic Anthropology (4)

Prereq: 270 and 371. Survey of economic arrangements found in various types of cultural systems, with emphasis on application of anthropological theory and method for understanding of particular systems.

### 351 Political Anthropology (4)

Prereq: 270 and 371. Cross-cultural survey of political arrangements with emphasis on application of anthropological method and theory to political problems.

### 352 Paleoethnology (4)

Prereq: 270, 390. Introduction to "the new archeology" in which goals, theory and methods are directed toward reconstruction of extinct sociocultural systems rather than toward time-space distribution of archeological materials.

### 358 Women: A Cross-Cultural Survey (4)

Prereq: 270, 371. Cross-cultural survey of women with emphasis on factors determining roles and status of women in various types of cultural systems. Replaces Anth 458.

### 366 Cultures of the Americas (4)

Prereq: 270 and 371. Survey of cultural diversity present in North, South or Meso-America with emphasis on application of anthropological method and theory to understanding of particular sociocultural systems.

### 370 General Anthropology (5)

Sr terminal course in introductory anthropology. Not open to students who have taken 270.

### 371 Ethnology (4)

Prereq: 270. Cross-cultural survey of structure and process in various cultures; includes consideration of kinship, economics, politics and ideology.

### 372 Cultures of the World (4)

Prereq: 270 and 371. Ethnographic sampling of similarities and differences in cultural systems found around the world and through time.

### 373 Perspectives in Anthropology (4)

Prereq: 270 and 371. Primarily for anthropology majors. Includes following areas of anthropological concern: nature of scientific inquiry, ethnology (historical school, structural-functional approach, evolutionism, culture and personality), linguistics, archeology, physical anthropology.

### 375 Culture and Personality (4)

Prereq: 270, 371; psychology recommended. Interrelations between personality systems and cultural systems.

### 377 Peasant Communities (4)

Prereq: 270 and 371. Focuses on folk component of state societies.

### 381 Culture Areas of Sub-Saharan Africa (4)

Prereq: 270 and 371. Survey of cultural diversity present in Sub-Saharan Africa with emphasis on application of anthropological theory and method to understanding of particular sociocultural systems.

### 382 Prehistory of Europe (4)

Prereq: 270, 390. Archeological material of European cultures from Neolithic to early Middle Ages, principles of excavation, problems of analysis and research.

### 384 Old World Prehistory (4)

Prereq: 270, 390. Examination of Paleolithic hunting and gathering societies and early Neolithic food producers in selected parts of the Old World. Emphasis on processes of adaptation and evolution.

### 385 Cultures of Southeast Asia (4)

Prereq: 270 and 371. Survey of cultural systems of island and mainland Southeast Asia.

### 386 Problems in Southeast Asian Anthropology (4)

Prereq: 270, 371, 385. Selected topics of current theoretical concern relating to Southeast Asia.

### 387 Cultures of Oceania (4)

Prereq: 270 and 371. Anthropological survey of Melanesia, Polynesia and Micronesia.

**388 Cultures of the Middle East (4)**

Prereq: 270 and 371. Examination of traditional cultures of the Middle East (nomad, village and urban) with emphasis on cultural adaptation to arid lands, Islamic institutions and culture changes under the impact of western society.

**390 Biology, Society and Culture (4)**

Prereq: 270. Introduction to biological and cultural evolution of man utilizing combined perspectives of physical anthropology and archaeology.

**399 Readings in Anthropology (1-3, max 6)**

Prereq: 270, 371 and perm. Supervised readings in various fields of anthropology: archaeology, ethnology, linguistics, physical anthropology.

**455 Seminar in Methodology and Field Research (1-4, max 8)**

Prereq: 13 hrs and perm. Practical training in application of theoretical models to data in one of following sub-fields: archaeology, ethnology, physical anthropology. Primarily designed for anthropology majors.

**457 Anthropology of Religion (4)**

Prereq: 13 hrs. Survey of various aspects of religion in their cultural setting, with emphasis on use of anthropological theories for an objective understanding of religion.

**472 History of Anthropological Thought (4)**

Prereq: 270, 371, 390. In-depth examination of schools of anthropology as they have developed within various sub-fields at different times and places.

**476 Culture Contact and Change (4)**

Prereq: 13 hrs. Impacts of cultures upon one another: immediate and subsequent cultural adaptations.

**478 Cultural Ecology (4)**

Prereq: 13 hrs. Analysis of mutual and reciprocal relations between socio-cultural systems and other systems in their environment: ecosystems and biotic communities in which human populations are included.

**490 Independent Research in Anthropology (1-10, max 10)**

Prereq: open to srs only. 20 hrs anthropology and written perm prior to qtr in which study is begun. Individual research in anthropology in specific problem areas in which student has demonstrated ability and interest.

**491 Primate Social Organization (4)**

Prereq: 270, 390. Introduction to primate ethnology, with reference to development of cultural behavior.

**492 Human Evolution (4)**

Prereq: 270, 390. Basic principles of synthetic

theory of evolution, development of mammals and evolution of primates, with emphasis on Pongidae and Hominidae.

**494 Seminar in Anthropology (4-6, max 12)**

Prereq: 13 hrs. Selected topics in anthropology.

**496 Human Diversity (4)**

Prereq: 270, 390. Population genetics of human variation emphasized, particularly basic Mendelian concepts, anthropometric variation and raciation.

## ARCHAEOLOGY

See Foreign Languages and Literatures.

## ART

**101 Studio Foundations (5)**

Required of all entering freshmen in art. Drawing and 2-dimensional design.

**102 Studio Foundations (5)**

Required of all entering freshmen in art. Color and color theory studies.

**103 Studio Foundations (5)**

Required of all entering freshmen in art. 3-dimensional design, introduction to materials and techniques of sculpture.

**104 Basic Photography (5)**

Introduction to art and techniques of photography. For majors and nonmajors. Students required to have a suitable camera plus their own processing and enlarging accessories. 1 lec, 4 lab hrs. Formerly Phot 101.

**205 Painting (3 or 5)**

Prereq: 101-103.

**206 Painting (3 or 5)**

Prereq: 205.

**207 Painting (3 or 5)**

Prereq: 206.

**215 Ceramics (3 or 5)**

Prereq: 101-103.

**216 Ceramics (3 or 5)**

Prereq: 215.

**217 Ceramics (3 or 5)**

Prereq: 216.

**228 Drawing (3)**

Prereq: 101-103.

**231 Sculpture—Wood (3 or 5)**

Prereq: 101-103.

**232 Sculpture—Synthetic (3 or 5)**

Prereq: 101-103.

**233 Sculpture—Metals (3 or 5)**

Prereq: 101-103.

**236 Metal Design (3 or 5)**

Prereq: 101-103.

**241 Lithography (3 or 5)**

Prereq: 101-103.

**242 Intaglio (3 or 5)**

Prereq: 101-103.

**247 Relief Prints (3 or 5)**

Prereq: 101-103.

**248 Silk Screen (3 or 5)**

Prereq: 101-103.

**251 Graphic Design-Typography (3-5)**

Prereq: 101, 102, 103. Typography as a designer's tool and as communication. Emphasis upon design of symbols and type faces. Formerly Des 330.

**252 Graphic Design-Three Dimensional (3-5)**

Prereq: 101, 102, 103. Examination of 3-dimensional design problems with special attention to environment, packaging and display. Formerly GfcD 339.

**253 Graphic Design-Illustration (3-5)**

Prereq: 101, 102, 103. Pictorial imagery as a design tool. Problems in product, poster, magazine and book illustration. Formerly Des 334.

**254 Graphic Design-Lettering (5)**

Prereq: art education major or perm. Lettering as a design and communication element. History and techniques of lettering and calligraphy. Formerly GfcD 330.

**275 Weaving (3)**

Prereq: 101-103.

**276 Weaving (3)**

Prereq: 275.

**295 Intermediate Photography (5)**

Prereq: 104, portfolio review and perm. Thorough presentation of craftsmanship of medium with emphasis placed on esthetic considerations. 3 lec, 4 lab. Majors expected to enroll concurrently in AH 237-239. Formerly Phot 205.

**296 Intermediate Photography (5)**

Prereq: Art 295. Continuation of 295. See 295 for description. Formerly Phot 206.

**297 Intermediate Photography (5)**

Prereq: Art 296. Continuation of 296. Formerly Phot 207.

**303 Watercolor (3)**

Prereq: jr rank.

**304 Watercolor (3)**

Prereq: 303.

**305 Painting (3 or 5)**

Prereq: 207.

**306 Painting (3 or 5)**

Prereq: 305.

**307 Painting (3 or 5)**

Prereq: 306.

**308 Figure Painting (3)**

Prereq: 207.

**309 Figure Painting (3)**

Prereq: 308.

**315 Ceramics (3 or 5)**

Prereq: 217.

**316 Ceramics (3 or 5)**

Prereq: 315.

**317 Ceramics (3 or 5)**

Prereq: 316.

**321 Drawing Workshop (3)**

Prereq: jr rank.

**322 Drawing Workshop (3)**

Prereq: 321.

**328 Drawing (3)**

Prereq: 228.

**329 Drawing (3)**

Prereq: 328.

**331 Sculpture (3 or 5)**

Prereq: 9 hrs sculpture.

**332 Sculpture (3 or 5)**

Prereq: 331.

**333 Sculpture (3 or 5)**

Prereq: 332.

**336 Metal Design (3 or 5)**

Prereq: 236.

**341 Prints (3 or 5)**

Prereq: 9 hrs prints.

**342 Prints (3 or 5)**

Prereq: 341.

**343 Prints (3 or 5)**

Prereq: 342.

**351 Graphic Design-Typography (3-5)**

Prereq: 251. Practical and experimental type design. Emphasis on type setting, reproduction and printing processes. Formerly GfcD 430.

**352 Graphic Design-Exhibit (3-5)**

Prereq: jr rank. Exhibit and presentation as environmental design and communication. Emphasis on educational, museum and commercial exhibit application. Formerly Des 439.

**353 Graphic Design-Illustration (3-5)**

Prereq: 253. Continuation of Art 253. Formerly Des 434.

**354 Graphic Design-Media (3-5)**

Prereq: 6 hrs of graphic design or perm. Time, motion, light and sound as design and communication tools. Problems in design with film, slides, overhead projection, sound track and video tape. Formerly Des 337.

**355 Film Animation (3-5)**

Prereq: Film 361 or perm. Design problems in 16mm film animation. Basic methods and camera techniques. Formerly Des 338.

**360 Art for Elementary Teachers (6)**

Prereq: jr rank.

**375 Weaving (3)**

Prereq: 276.

**376 Weaving (3)**

Prereq: 375.

**391 Advanced Photography (5)**

Prereq: 297, review of 297 portfolio and perm. Individual problems and seminars. Formerly Phot 371.

**392 Advanced Photography (5)**

Prereq: 297, portfolio review and perm. Individual problems and seminars. Formerly Phot 372.

**393 Advanced Photography (5)**

Prereq: 297, portfolio review, and perm. Individual problems and seminars. Formerly Phot 373.

**405 Painting (3 or 5)**

Prereq: 307.

**406 Painting (3 or 5)**

Prereq: 405.

**407 Painting (3 or 5)**

Prereq: 406.

**415 Ceramics (3 or 5)**

Prereq: 317.

**416 Ceramics (3 or 5)**

Prereq: 415.

**417 Ceramics (3 or 5)**

Prereq: 416.

**418 Glass (3)**

Prereq: sr rank or perm.

**419 Glass (3)**

Prereq: 418.

**428 Drawing (3)**

Prereq: 329.

**429 Drawing (3)**

Prereq: 428.

**431 Sculpture (3 or 5)**

Prereq: 333.

**432 Sculpture (3 or 5)**

Prereq: 431.

**433 Sculpture (3 or 5)**

Prereq: 432.

**436 Metal Design (3 or 5)**

Prereq: 336.

**441 Prints (3 or 5)**

Prereq: 343.

**442 Prints (3 or 5)**

Prereq: 441.

**443 Prints (3 or 5)**

Prereq: 442.

**451 Graphic Design-Senior Studio (3-5)**

Prereq: 21 hrs of graphic design or perm. 2- and 3-dimensional graphic design with emphasis on professional and creative solutions. Problems in research and production. Formerly Des 431.

**452 Graphic Design-Senior Studio (3-5)**

Prereq: 451 or perm. Design problems carried through all professional stages. Examination of design in context of its various applications. Formerly Des 432.

**453 Graphic Design-Senior Studio (3-5)**

Prereq: 452 or perm. Emphasis on individual problems and individual professional orientation. Portfolio preparation and presentation. Production of brochure and preparation of resume. Formerly Des 433.

**461 Art Experiences in the Elementary School (3)**

Prereq: jr rank.

**462 Art Teaching in the Secondary School (3)**

Prereq: jr rank.

**475 Weaving (3)**

Prereq: 376, perm.

**476 Weaving (3)**

Prereq: 475.

**480 Individual Problems (1-5)**

Prereq: perm.



**481 Individual Readings (1-5)**

Prereq: perm.

**495 Photography-Senior Work (5)**

Prereq: 393, portfolio review, and perm. Individual problems and seminars. Formerly Phot 471.

**496 Photography-Senior Work (5)**

Prereq: portfolio review and perm. Individual problems and seminars. Formerly Phot 472.

**497 Photography-Senior Work (5)**

Prereq: portfolio review and perm. Individual problems and seminars. Formerly Phot 473.

## ART HISTORY

**211 History of Art (3)**

**212 History of Art (3)**

**213 History of Art (3)**

**237 History of Photography (4)**

Prereq: soph rank or perm. History of development of photography as an art, a science and an industry. Study of leading photographers and their contributions to development of the art.

**238 History of Photography (4)**

Prereq: 237. Continuation of 237. See 237 for description.

**239 History of Photography (4)**

Prereq: 238. Continuation of 237-238. See 237 for description.

**320 Greek Art (4)**

Prereq: 211-213 or perm. Specific developments in period between Minoan/Helladic cultures and those of Alexandrian Empire.

**321 Roman Art (4)**

Prereq: 211-213 or perm. Motifs and concepts ranging from Etruscan artifacts through Hellenistic to advent of Constantine.

**322 Medieval Art (4)**

Prereq: 211-213 or perm. Painting and sculpture from time of Constantine to that of Giotto.

**323 Italian Renaissance Art (4)**

Prereq: 211-213 or perm. Monuments, motifs and their implications in Quattrocento Italy.

**324 Northern Renaissance Art (4)**

Prereq: 211-213 or perm. Monuments, motifs and their implications in Renaissance France, England and the Low Countries and in Reformation Germany.

**325 Art of High Renaissance and Mannerism (4)**

Prereq: 211-213 or perm. Studies in art and theory of Cinquecento.

**326 Baroque and Rococo Art (4)**

Prereq: 211-213 or perm. Paintings and sculpture of 17th and 18th centuries.

**327 Art of the 19th Century (4)**

Prereq: 211-213 or perm. Arts and their development during and after Industrial Revolution.

**328 Modern Art (4)**

Prereq: 211-213 or perm. Specific movements and artists since 1900.

**329 The Arts of the United States (4)**

Prereq: 211-213 or perm. Specific problems and their patterns from Colonial Era.

**330 The Arts of the Orient (4)**

Prereq: 211-213 or perm. Selected studies of arts of India, China and Japan.

**331 Pre-Columbian Art (4)**

Prereq: 211-213 or perm. Arts of early Mexico, Middle and South America.

**332 African Art (4)**

Prereq: 211-213 or perm. Survey of traditional West African tribal art.

**333 Ancient Near Eastern Art (4)**

Prereq: 211-213 or perm. Motifs and monuments of Egypt, Mesopotamia, Assyria and Babylonia.

**334 Aspects of Film (see listing under FILM)**

**337 Studies in the Narrative Film (See listing under FILM)**

**338 Studies in the Documentary Film (See listing under FILM)**

**339 Studies in the Imagist Film (See listing under FILM)**

**340 Art and Ideas in Painting (4)**

Prereq: sr rank, 211-213 and 1 art history course, or perm. Examination of the approach of painters of western art to their work. Non-historical in nature, using subject matter as framework and foundation with ideas and concepts concerning the creative act and artist-work of art relationship.

**360 Seminar in Art Historiography (4)**

Prereq: advanced work in art history or perm. An investigation of the various methodological approaches to the study of art.

**480 Individual Problems (1-6)**

Prereq: perm.

**481 Individual Readings (1-6)**

Prereq: perm.

## ASTRONOMY

### 100 Survey of Astronomy (3)

(on demand) Nontechnical course requiring no physics or mathematics background. Topics covered: risings and settings of sun, moon and stars for various latitudes; causes of seasons; learning to know constellations; physical properties of planets; life on other planets; comets, meteors and meteorites; physical properties of sun and stars; origin and evolution of stars; structure of our galaxy; pulsars; quasars; other galaxies; expanding universe; theories of cosmology.

### 300 Elementary Astronomy (3)

Prereq: mathematics through trigonometry, and elementary physics. Apparent motions of sun, moon, planets and stars. Relations between apparent positions of celestial objects and time, latitude and longitude of observer. Applications to time determination, surveying and navigation. Physical properties of earth, moon and planets.

### 301 The Solar System (3)

Prereq: 300. Physical properties of sun, moon, planets, comets, meteors and meteorites. Atmospheres, temperatures and surface conditions of other planets. Origin and evolution of the planets.

### 302 Stars and Galaxies (3)

Prereq: 301. Methods of studying sizes, temperatures, densities and compositions of stars and nebulae. Physical properties of our galaxy. Physical properties of other galaxies and their arrangement in space. Theories of origin and evolution of stars and galaxies.

### 310 Astronomy Laboratory (1)

Prereq: 300 or with 300. Observational work at telescope. Computations of coordinates of celestial objects. Practice with marine sextant and aviation octant. Solution of navigation problems.

### 311 Astronomy Laboratory (1)

Prereq: 300 and 310. Observational work at telescope, with emphasis on moon and planets. Measurement of astronomical photographs and spectrograms. Reduction of astronomical data.

### 312 Astronomy Laboratory (1)

Prereq: 301 and 311. Observational work at telescope, with emphasis on stars, nebulae and galaxies. Measurement of stellar spectrograms for determination of radial velocity. Spectroscopic measurement of velocities of recession of galaxies and quasars.

### 320 Elements of Navigation (2)

Prereq: 300, mathematics through trigonometry. (on demand) Basic navigational astronomy; use of sextant and nautical almanac; line of position method as used in air and surface navigation.

### 350 Celestial Mechanics (4)

Prereq: 301, differential equations. (on demand) Differential equations of planetary motion; vector treatment of 2-body problem; determination of orbits of planets and satellites.

### 450 Studies in Astronomy (1-6, arranged)

Prereq: 302.

## AVIATION

Due to possible changes in federal regulations, the requirements for pilot certification may alter flight course contents and special fees. Contact the Aviation Department for current information.

### 110 Primary Ground Instruction (4)

40 hrs ground instruction covering radio navigation, meteorology, FAA regulations, communications, aircraft construction and performance data to meet requirements of private pilot's written exam. 4 lec.

### 240 Primary Flight Instruction (4)

Prereq: FAA written passed. 40 hrs flight training and related lectures including primary flight maneuvers and cross-country flying. Meets requirements for private pilot's certificate, 1 lec, 5 lab. Course fee: \$700.

### 310 Commercial Ground Instruction (4)

Prereq: private pilot's certificate. 40 hrs ground instruction covering advanced radio navigation, meteorology, FAA regulations, aircraft construction, performance data and instruments to meet requirements of commercial written exam. 4 lec.

### 315 Flight Instructor Ground Instruction (4)

Prereq: commercial pilot's certificate or perm. 40 hrs review of all previous instruction with emphasis on how to instruct and a breakdown of maneuvers. Covers requirements for flight instructor written exam. 4 lec.

### 340 Intermediate Course No. 1 (4)

Prereq: private pilot's certificate. 40 hrs flight training consisting mainly of solo cross-country. 5 lab. Course fee: \$580.

### 343 Intermediate Course No. 2 (4)

Prereq: private pilot's certificate and 340, or perm. 40 hrs flight training consisting mainly of solo cross-country to build flying hrs toward a higher rating. 5 lab. Course fee: \$580.

### 345 Intermediate Course No. 3 (3)

Prereq: private pilot's certificate, 340, and 343, or perm. 35 hrs flight training consisting of introduction to advanced maneuvers and cross-country to qualify for commercial course. 5 lab. Course fee: \$510.

**415 Instrument Ground Instruction (4)**

Prereq: commercial pilot's certificate or perm. 30 hrs ground instruction on flying solely by reference to instruments to meet requirements of instrument written exam. Included are maneuvers, navigation, meteorology, radio procedures and instrument interpretation. 4 lec.

**418 Instrument Instructor Ground Instruction (3)**

Prereq: instrument rating. 30 hrs review of instrument course with emphasis on how to instruct instrument flying. Covers requirements for instrument written exam. 3 lec.

**420 Commercial Flight Course (4)**

Prereq: private pilot's certificate and 140 flying hrs from approved school or 160 hrs from unapproved school, and FAA written passed. 40 hrs dual flight instruction and solo practice designed to increase proficiency toward commercial pilot certificate. Includes cross-country, advanced maneuvers, night and instrument instruction. 5 lab. Course fee: \$725.

**421 Airline Transport Ground Instruction (4)**

Prereq: instrument rating and multi-engine rating. 40 hrs advanced course placing major emphasis on specific requirements and duties of airline transport pilots in accordance with Federal Aviation Regulations. Provides aeronautical requirements for airline transport pilot written exam. 4 lec.

**443 Flight Instruction in Multi-Engine Aircraft (2)**

Prereq: pilot's certificate or perm. 12 hrs of procedures with both engines operative, with one engine inoperative (feathered), single engine speeds, effects of airplane configuration on engine-out performance. Enroute operations, single engine approaches and landings. 1 lec. Course fee: \$645.

**445 Flight Instructor Course (3)**

Prereq: commercial pilot's certificate or perm. 25 hrs review of commercial course with emphasis on how to instruct and analysis of maneuvers. 5 lab. Course fee: \$396.

**448 Instrument Flight Course (4)**

Prereq: commercial pilot's certificate or perm. 30 hrs of instruction of flight by sole reference to instrument approaches. 5 lab. Course fee: \$520.

**450 Instrument Flight Instructor Course (2)**

Prereq: instrument rating. 25 hrs of review of instrument course with emphasis on how to instruct on instruments. 5 lab. Course fee: \$425.

**460 Airline Transport Pilot Flight Course (2)**

Prereq: commercial pilot's certificate, instrument and multi-engine rating and perm. 15 hrs taking a practical and operational approach to problems

that arise in planning and conducting air transport operations. 5 lab. Course fee: \$785.

**475 Internship in Aviation Operations (1-15)**

Prereq: perm. Internship program in selected fields of aviation under direction of faculty member. Specific fields could be: (1) serving as an intern in a commercial flight operation as a co-pilot or as a flight instructor; (2) serving as an intern in an airport operation as an assistant to an airport manager, or (3) special service flying such as medical supplies, fire-fighting, cloud seeding, FAA observers, etc.

## BACTERIOLOGY

See Zoology.

## BIOLOGY

See Botany or Zoology.

## BLACK STUDIES

Education

Fine Arts

History and Political Science

Language Arts and Communications

Literature

Sociology and Psychology

## BLACK STUDIES—EDUCATION

**103 Introduction to Education I (5)**

Ultimate aim of education is to enable each child to develop a positive image of himself or herself as a *person* and a *learner*. This seminar explores areas of identity, self-worth and positive regard as elements of the learning environment. Head Start, early childhood grades and primary grades stressed.

**104 Introduction to Education II (5)**

Explores affective strategies and how they can be designed and implemented to support learner. Primary and elementary grades stressed.

### 301 Advanced Education (5)

Educational processes in relation to contemporary society, cultural forces and institutions helping to shape education; some resulting issues and problems. School as an institution of education, its guiding theories and basic practices, as well as role of teacher will provide a staging point for this seminar.

### 342 Teaching Techniques of the Inner City (5)

Study of techniques for teaching in inner city school systems.

## BLACK STUDIES—FINE ARTS

### 101 Introduction to Afro-American Arts (5)

Comparative study of ideas and esthetic trends in Afro-American art from colonial slavery through contemporary black arts movement.

### 115 Black Music I (3)

3-qtr sequence course. Deals with musical contributions by Afro-Americans from pre-slavery through 1930.

### 116 Black Music II (3)

Innovation and ideas in black music from 1930-1950.

### 117 Black Music III (3)

Study of black music from 1950 to present with emphasis on new musical forms.

### 490A Black Choral Ensemble (1-5)

Practicum in Afro-American music.

### 490B Study in Comparative Drama (1-5)

Study of comparative drama dealing with various contributions from minority peoples.

## BLACK STUDIES—HISTORY AND POLITICAL SCIENCE

### 106 Introduction to Afro-American History I (5)

Examination of impact of people of Afro-American descent on general development of American society. Particular consideration given to interconnection between struggles of black people and decisive political, economic, social and cultural trends in America.

### 107 Introduction to Afro-American History II (5)

In-depth study of impact of Afro-American people on general development of American society with particular emphasis on Reconstruction and Civil Rights Movement of the 50s and 60s.

### 121 Basic Political Economy (5)

Exploration of theories of political policies and economic processes, their interrelations and their influence on socio-economic character of the black community.

### 201 History of the Black Worker (5)

Analysis of historical role of black labor force in the American economy, with emphasis on pattern of relationships between black workers and general organization of American labor movement.

### 251 Afro-American Socio-Economic Development I (5)

Prereq: 250. Political-economic study of historical development of black people in American society from colonial period to 1860.

### 252 Afro-American Socio-Economic Development II (5)

Prereq: 251. Continuation of 251: 1860 to 20th century. Extensive coverage of Reconstruction era through development of American imperialism and consequence of these processes on Afro-American community.

### 254 History of Injustice in the United States (5)

History of injustice in the United States from slavery to W. E. B. DuBois.

### 350 The Black Community in the 20th Century (5)

Prereq: 252 or perm. Survey of black community's development during 20th century and its relation to development of larger American society over the same period. Attention given to interconnection between social conditions and certain aspects of black liberation movements.

### 360 Black Political Thought (5)

Analysis of basic tenets of black thought in the United States. Emphasis on certain theoretical dimensions of 19th century black writers.

### 490E Advanced Political Analysis (1-5)

Prereq: 121. Intensive study of selected political phenomena; emphasis on multi-national relationships.

### 490I Conference on Racism (1-5)

Deals with various aspects of oppression of minorities throughout the world.

### 493 Politics of Change (5)

Prereq: 121 or perm. Research and directed reading in relation to analysis of problems and advanced stages of development of national liberation movement in selected countries.

### 494 Comparative Colonialism (5)

Prereq: 250 or perm. Seminar in selected social systems.

## BLACK STUDIES—LANGUAGE ARTS AND COMMUNICATIONS

### 100 Practice Study Skills (3)

Comprehensive study of language and cultural

problem areas encountered by minority students on a predominantly white campus.

### **119 Introduction to Black Media (3)**

Contributions of past and present black broadcasters and their relationship to development of radio and television media. Socio-cultural achievement, opportunities and strategies for change form backdrop for this course.

## **BLACK STUDIES—LITERATURE**

### **109 Introduction to Afro-American Literature I (5)**

3-qtr sequence giving a general analysis and survey of Afro-American literature and linkage of general notions and concepts to socio-economic conditions during this time period as reflected in the works. 109 covers the period from 1619-1850.

### **110 Introduction to Afro-American Literature II (5)**

Continuation of 109. See 109 for description. 110 covers period from 1851-1920.

### **111 Introduction to Afro-American Literature III (5)**

Continuation of 109-110. See 109 for general description. 111 covers period from 1920-present of literature written primarily by Afro-American women.

### **113 Literature of Africa: Introduction (5)**

Survey of literature by African authors. Deals with expression of African experiences via novels, plays and poetry.

### **210 Afro-American Literature (5)**

Survey of literature by black American authors. Deals with expression of the Afro-American experience in novels, plays and poetry.

### **211 Third World Literature (5)**

Survey of various literary trends and authors of 3rd world countries (i.e., Africa, South America, Central America, etc.).

### **355 Literature of West Africa (5)**

Survey of literature of West Africa from cultural, social and political perspectives.

### **356 Contemporary Afro-American Literature (5)**

Various modes (e.g. ballad, sonnet, blues, jazz, folk) and moods (e.g. neo-classical, romantic, realistic, naturalistic, surrealist) of black poetry from folk origins through the Harlem Renaissance.

### **357 Literature of Latin America (5)**

Survey of black literature of Latin America from cultural, social and political perspectives.

### **358 Literature of South Africa (5)**

Analysis of novels, plays, poetry, short stories,

from historical as well as artistic perspective; examination of forces that produce these documents of history.

### **460 Literature Seminar (5)**

Analysis of major black literary figures and themes, specific topics chosen each qtr.

## **BLACK STUDIES— SOCIOLOGY AND PSYCHOLOGY**

### **200 History of Colonialism (5)**

Historical analysis of development of colonialism and social psychological factors affecting colonial peoples and/or oppressed nationalities.

### **264 Comparative Study of Injustice (5)**

Examination of history of oppression of nationalities in Southern Africa and the United States; role of racism as a factor, social and psychological effects on society; parallel study of anti-oppression movements in both worlds.

### **362 The Black Family (5)**

Black family in America and its important role in development of ethnic differences, strengths and strategies.

### **490 Independent Study (1-5)**

Prereq: perm from dean. Primarily for students interested in concentrated study in a specific area in cooperation with advisor.

### **490N Black Perspectives (1)**

Consists of on-campus and visiting lecturers presenting a black perspective regarding social, economical, political conditions of minority people.

## **BOTANY**

The major requirement for the AB degree is a minimum of 45 hours in departmental courses, and for the BS degree, 55 hours. Both AB and BS degree candidates must complete the following requirements: Bot 101, 102, 307, 308, 309, 310, 405, 424, 425, 431 and Zool 203.

Nondepartmental courses required for both the AB and BS degrees are: Chem 141, 142, 143, 301, 302, 303, 304; Zool 325; Phys 201, 202 and 203; Math 163A and 163B or Math 263A and 263B. (Students should be *certain* to see an advisor before making a choice of math sequence.) Ten hours of English are required.

For students interested in majoring in botany, preprofessional training in environmental biology or forestry, or preparation for other botanically related disciplines such as agronomy, marine biology, medical mycology, horticulture, landscape architecture or plant breeding, see the Special Curricula section under Arts and Sciences.

Students majoring in botany are permitted to take courses satisfying major requirements on a pass/fail option according to University regulations governing the use of this option.

The department recommends, however, that the student majoring in botany take all departmental major requirements and required non-departmental courses for a letter grade. This is especially important if students expect to apply to graduate or professional schools for instruction beyond the degree of bachelor of science.

#### 101 Principles of Biology (5)

Introduction to principles and concepts of life; emphasis on interrelationships of structural, functional, reproductive, evolutionary and ecological principles related to cells and organisms. (Same as Zool 101.) 3 lec, 2 lab.

#### H101 Principles of Biology (5)

Prereq: perm. Introduction to principles and concepts of life; emphasis and interrelationships of structural, functional, reproduction, evolutionary and ecological principles related to cells and organisms. Designed for students of unusual curiosity who may not intend to follow a botanical, zoological or medical curriculum. 3 lec, 2 lab.

#### 102 Plant Biology (5)

Prereq: 101. Morphology and anatomy of seed plants as related to function. Survey of plant kingdom with emphasis on evolutionary relationships and life histories of selected plant groups. 3 lec, 2 lab.

#### 103 Biology, Plants and Man (4)

Prereq: 101 suggested. Interrelationships of plants and man from both historical and modern points of view, origins of agriculture and civilization, tropical and temperate food plants, medicinal plants, drug plants, destruction of environment and its ultimate effect on food plants. 3 lec, 1 disc.

#### 111 Introduction to Botany (5 or 6)

Prereq: 101 or Zool 101 with perm. Introduction to morphology and physiology of vascular plant; survey of plant kingdom. Science-interested students should select 111 in lieu of 102. Number of credit hrs depends upon number of lab hrs elected.

#### 247 Vegetation of North America (4)

Prereq: 1 yr biological science. *W. Wistendahl*. Illustrated lecture course considering extensive plant formations with relationship to climate, soil, geographic formations and influence of man. 3 lec.

#### 248 Trees and Shrubs (5)

Prereq: 102. (fall) *A. Blickle*. Collection, identification, nomenclature, classification, ecological relationships and importance to man of native and introduced woody plants. 3 lec, 4 lab, supplementary field trips.

#### 307 Biology of Algae and Mosses (6)

Prereq: 102. *J. H. Graffius*. Comparative studies of phylogenetic relationships, structural adaptations and life histories of algae and bryophytes. 4 lec, 4 lab.

#### 308 Morphology of Vascular Plants (6)

Prereq: 307. *G. Rothwell*. Comparative studies of phylogenetic relationships, structural adaptations and life cycles of fern allies, ferns, gymnosperms and angiosperms. 4 lec, 4 lab.

#### 309 The Ohio Flora (5)

Prereq: 102. (spring) *R. Lloyd*. Origin and evolution of flora of Ohio and Appalachian Mountains; plant communities, geologic history and ecology of region. Lab: identification and classification of spring flora. 3 lec, 6 lab, field trips.

#### 310 Biology of Fungi (5)

Prereq: 102. *C. Miller*. Morphology and life history studies of selected fungi of major groups; collection, isolation and growth of selected fungi; fungal activities. 3 lec, 4 lab.

#### 311 Biology and Human Affairs (3)

Prereq: 102. *Staff*. Discussions of impact of modern biological science upon human problems in biological, social, moral and political areas. No credit toward botany major requirement. Applies to the natural science requirement.

#### 312 Plant Anatomy (5)

Prereq: 102. *G. Rothwell*. Comparative structure and systematic anatomy of vascular plants. 3 lec, 3 lab.

#### 313 Special Topics in Botany (1-6)

Prereq: perm. Current and/or special topics in botany.

#### 313B Special Topics—Supervised Study (1-3)

Prereq: botany majors and perm.

#### 368 Teaching of Biology (3)

Prereq: 18 hrs biological sciences. High school biology instructional methods with emphasis on laboratory techniques. 3 lec. No credit toward botany major requirement. Not applicable to Arts and Sciences natural science or 200-level requirements.

#### 404 Undergraduate Research (2-6)

Prereq: 24 hrs botany and perm. Independent research under supervision of faculty member.

#### 405 Discussions About Biology (2)

Prereq: 15-20 hrs biology. Discussions of experimental problems and approaches focusing on synthesis of ideas and principles in biological fields.

#### 420 Fresh-Water Algae (5)

Prereq: 307 or 102, with perm. *J. H. Graffius*. Taxonomy and ecology of fresh-water algae, with

emphasis on identification and distribution of common or representative genera. 3 lec, 4 lab.

#### 424 Plant Physiology (6)

Prereq: Organic chemistry recommended. (winter) *L. Larson*. Basic chemical and physical aspects of plant processes; photosynthesis, respiration, mineral nutrition, transport, nitrogen metabolism, water relations and growth. 3 lec, 4 lab.

#### 425 Ecology (5)

Prereq: jr or sr rank; course in plant physiology. (fall) *I. Ungar, W. Wistendahl*. Effect of environmental factors as related to structure and function of plant communities. 3 lec, 4 lab, 1 Saturday field trip.

#### 426 Advanced Ecology (5)

Prereq: sr rank, course in plant taxonomy, and 425. (winter or spring-alternate yrs) *I. Ungar, W. Wistendahl*. Analysis and interpretation of ecological problems. 3 lec, 4 lab, 1 Saturday field trip.

#### 431 Cytology (5)

Prereq: 10 hrs biological science, 1 yr chemistry, Zool 325 recommended. (winter). *J. Braselton, J. Mitchell*. Gross and fine structure of cells; mitosis; meiosis; morphology; chemistry; behavior of nuclear and cytoplasmic constituents. 3 lec, 4 lab.

#### 432 Microtechnique (5)

Prereq: sr rank and perm. *J. Braselton*. Preparation of plant tissues for microscopic study. 6 lab.

#### H450 Honors in Biology (5)

Prereq: perm. *M. Jaffe*. Central ideas of modern biology with focus on several appropriate and current problems. Creative spirit in biology and in science as a whole. Similarities and differences of process of discovery in art, philosophy and science. Primarily a reading course with discussions among the group.

#### 460 Paleobotany (6)

Prereq: perm. *G. Rothwell*. Morphology and evolution of representative fossil plant groups. 3 lec, 6 lab.

#### 475 Plant Speciation and Evolution (3)

Prereq: srs in botany, biology, zoology or perm. *R. Lloyd*. Principles of evolution and speciation of flowering plants and ferns with emphasis on nature of plant species, divergence, isolation, hybridization and nature of genetic systems therein. 3 lec.

#### H494 Honors in Botany (2-15, max 15)

Prereq: perm. Undergraduate research by qualified students.

## BUSINESS ADMINISTRATION

The general business major prepares professionals on a broad basis for a business career.

In addition to the BBA degree requirements, a student majoring in general business must complete 16 hours from College of Business Administration course offerings at the 300 or 400 level including at least one course from each of the following departments: accounting and quantitative methods, administrative sciences, economics and organizational science.

#### 101 Business and Its Environment (4)

Nature of business and of economic, social and political environments of the business firm. Emphasis on ways in which such surroundings affect business policies and operations.

#### 111 History of American Business (4)

Origins and development of American business, emphasizing interrelations among business, the economy, the society and the polity.

#### 310 Production Management (4)

Prereq: jr rank. Emphasis on organization of production function and its relationship to other management and functional activities.

#### 411 Production Planning and Control (4)

Prereq: 310. Quantitative techniques used in premanufacturing and control phases of production function.

#### 412 Production Management Problems (4)

Prereq: 310. Analysis of production management problems in various industries and technologies.

#### 431 Administration of Information Systems (4)

Prereq: sr rank or perm. Information networks and flows in organizations within total-systems framework.

#### 445 Small Business Administration (4)

Place and role of small business firms; problems they face; opportunities involved and competitive considerations.

#### 455 Studies in Business History (4)

Prereq: jr or sr rank. Case studies of American businessmen and firms since early colonial period, with emphasis on the 20th century. Lessons from the past are examined in relation to present sound business policy.

#### 465 Technology and the Environment (4)

Prereq: jr or sr rank. Course is conceptual, interdisciplinary and future-oriented. Variety of developmental problems and interaction of many technological environments including economic, sociopolitical and market environments.

#### **470 Administrative Policy (4)**

Prereq: C.B.A., sr rank. Integrated application of core studies to nature, functions and activities of actual business, analyzing objectives, policies and performance — all in relation to outside environment.

#### **480 Ethics and Morality in Business (4)**

Prereq: jr or sr rank. Combined moral philosophy and personal responsibilities in business; critical analysis of contextual situation where provisional resolutions must be indirectly charted between ethical oughts and economic musts.

#### **485 Multinational Business (4)**

Prereq: sr rank or perm. Study of the emergence of U.S. and non-U.S. multinational corporations, the scope of their operations and their impact on the U.S. economy and consumer.

#### **497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of business administration under direction of faculty member.

#### **462 Law of Estates and Trusts (4)**

Prereq: 255 or perm. Law as it pertains to decedents' estates including law of wills, intestate succession and trusts.

#### **475 Government and Business (4)**

Prereq: 255 or perm. Governmental regulatory environment of business including analysis of statutes, court decisions and rulings affecting policy decisions.

#### **491 Seminar (3, 4 or 5)**

Prereq: perm. Selected topics of current interest in business law area.

#### **493 Readings (1-15)**

Prereq: perm. Readings in selected fields of business law. Topics selected by students in consultation with faculty member.

#### **497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of business law under direction of faculty member.

## **BUSINESS LAW**

#### **255 Law and Society (4)**

Prereq: soph rank. Conceptual approach to origin, nature, structure, functions and procedures of law with study of contractual relationships.

#### **356 Law of the Management Process (4)**

Prereq: 255 and jr rank. Conceptual framework of legal nature of organizations, particularly corporations and partnerships; rights, powers and limits of managers in relation to duties and responsibilities to their organizations, owners, creditors, employees, customers, state and public.

#### **357 Law of Commercial Transactions (4)**

Prereq: 255 and jr rank. Legal aspects of commercial paper, consumer credit and bankruptcy.

#### **370 Environmental Law (4)**

Prereq: jr rank or perm. Legal aspects of both individual environmental and societal environmental rights and duties with respect to constitution, private property, nuisance, negligence, statutes, regulatory agencies and court decisions. Emphasis upon case study of federal, state and local laws which shaped existing law and those which are likely to shape future legislative and administrative action.

#### **442 Law of Property and Real Estate (4)**

Prereq: 255 or perm. Property law as an institution and analysis of creation, transfer and relation of various legal interests in property, especially land.

## **CHEMISTRY**

A student who completes the requirements for the BS degree with a major in chemistry is eligible for professional status in the American Chemical Society in the minimum period of two years of professional experience after graduation. Completion of the minimum requirements for the AB degree with a major in chemistry does not qualify a student for certification to the society.

The major requirement for the BS degree includes the following: 141-142-143; 305-306-307; 308-309; 400; 453-454-455; 456-457; 476; 484-485, and three additional hours (other than 499) above 400. Extra-departmental requirements include Math 263A-B-C and Phys 251-252-253, which should be completed by the end of the second year.

The major requirement for the AB degree includes the following: 141-142-143; 301-302 or 305-306-307; 303-304 or 308-309; 325 or 484-485; 351 or 453-454-455, and 476. A full year's work is required in at least one of the following fields: analytical (143-484-485); organic (305-306-307), or physical (453-454-455).

Students in AB and BS chemistry programs may not enroll on a pass/fail basis in any *required* courses in chemistry, physics or mathematics. Courses needed to fulfill the Arts and Sciences language requirement may not be taken pass/fail. Students in preprofessional programs may not take zoology courses on a pass/fail basis and those who are preparing for teaching certification may not take education courses on a pass/fail basis.

Students having foreign language requirements should take German or Russian. Those



anticipating graduate study should be aware that graduate schools generally require a reading knowledge of one or more foreign languages; German and/or Russian is recommended. Details of the MS and PhD programs are given in the Graduate Bulletin.

A ten dollar breakage card will be required for all chemistry *laboratory* courses, the unused portion of which will be refunded.

Completion of the AB or BS degree requirements automatically completes the requirement of the College of Arts and Sciences of at least nine hours in the major at the junior-senior level.

### 121 Introduction to Chemistry (4)

(fall, winter, summer) Introduction to chemistry through study of atomic and molecular structure, periodic table and states of matter. Recommended for students in College of Engineering and Technology (except chemical engineers), College of Education (except science modular program) and other programs requiring only 1 yr of chemistry. Credit not allowed for both 121 and 141. 3 lec, 3 lab.

### 122 Chemistry of Solutions (4)

Prereq: 121 or perm. (winter, spring, summer) Introduction to descriptive inorganic chemistry through study of solutions and concept of equilibrium. Credit not allowed for both 122 and 142. 3 lec, 3 lab.

### 123 Environmental Chemistry (4)

Prereq: 122 or perm. (spring, fall) Designed to survey organic chemistry, biochemistry and nuclear chemistry and their impact on environment. 3 lec, 3 lab.

### 141 Introductory College Chemistry (5)

(fall, winter, summer). General course in fundamental chemical principles. Atomic structure, periodic classification, bonding, mole concept and stoichiometry with problem solving. Recommended for majors in chemistry, chemical engineering, botany, zoology, medical technology, secondary education—science modular program and pre-professional (biological science) areas. Credit not allowed for both 121 and 141. 3 lec, 1 recit, 3 lab.

### 142 Chemical Energetics (5)

Prereq: 141 or perm. (winter, spring, summer). Introduction to thermodynamics and chemical equilibrium through study of solutions with problem solving. Credit not allowed for both 122 and 142. 3 lec, 1 recit, 3 lab.

### 143 Quantitative Analysis (5)

Prereq: 142 or perm. (spring, fall) Introduction to quantitative techniques to include volumetric and gravimetric methods of analysis. 3 lec, 1 recit, 3 lab.

### 301 Organic Chemistry (3)

Prereq: 123 or 143 or perm. (fall and summer)

Designed for students who are not BS chemistry majors and who do not require a full-year course in organic chemistry.

### 302 Organic Chemistry (3)

Prereq: 301. (winter, summer) Continuation of 301. See 301 for description.

### 303 Organic Chemistry Laboratory (1)

Prereq: 301 or 305, or with 301. (fall, spring, summer) Designed for students who are not BS chemistry majors. 3 lab.

### 304 Organic Chemistry Laboratory (2)

Prereq: 303 and 302 or with 302. (winter, summer) Continuation of 303. See 303 for description. 6 lab.

### 305 Organic Chemistry (3)

Prereq: 143 or perm. Organic chemistry for chemistry majors and other students wishing to acquire a sound knowledge of classical and modern organic chemistry.

### 306 Organic Chemistry (3)

Prereq: 305. Continuation of 305. See 305 for description.

### 307 Organic Chemistry (3)

Prereq: 306. Continuation of 305-306. See 305 for description.

### 308 Organic Chemistry Laboratory (2)

Prereq: 306, or with 306. (winter) Synthesis, purification and characterization of organic compounds. 6 lab.

### 309 Organic Chemistry Laboratory (2)

Prereq: 308 and 307 or with 307. (spring) Continuation of 308. See 308 for description.

### 325 Instrumental Methods of Analysis (4)

Prereq: 143. (fall, winter) Analytical chemistry course for students not majoring in chemistry, which emphasizes application of instrumental methods to solution of problems in chemical analysis. 3 lec, 3 lab.

### 345 Chemistry of Photography (4)

Prereq: 122 or 142 and Art 207. (spring) Basic chemistry of modern and historical photographic and photomechanical materials and processes. 2 lec, 4 lab.

### 351 Physical Chemistry (4)

Prereq: Math 263B. (fall) Students having lesser preparation in math are encouraged to seek perm to enroll based on special individual circumstances. For premedicine, science modular and AB chemistry majors. Topics include thermodynamics, thermochemistry, equilibrium, solutions, electrochemistry and kinetics.

### 400 Qualitative Organic Analysis (5)

Prereq: 307, 309. (spring) Separation and identification of organic compounds. 3 lec, 6 lab.

**420 Chemical Literature (3)**

Prereq: 24 hrs. reading knowledge of German. Instruction in the use of chemical literature and application to scientific writing.

**450 Principles of Quantum Chemistry (3)**

Prereq: Math 263C or perm. (winter) Introduction to solution of problems concerning molecular structure and spectroscopy in terms of quantum theory.

**453 Physical Chemistry (3)**

Prereq: 143, Math 263C, Phys 253. Calculus-based introduction to behavior of gases, liquids and solids, including kinetic theory of gases and crystallography of solids.

**454 Physical Chemistry (3)**

Prereq: 453. Continuation of 453. Laws of chemical thermodynamics and their application to chemical systems at and approaching equilibrium.

**455 Physical Chemistry (3)**

Prereq: 454. Continuation of 454. Study of multi-component phase equilibria, solution thermodynamics, electrochemistry and reaction rates and mechanisms.

**456 Physical Chemistry Laboratory (2)**

Prereq: 351 or 453. Experimental determination of molecular weights, ionic velocities, composition of azeotropes and complex ions, equilibrium constants, phase rule diagrams, etc. Instrumental procedures include refractometry, polarimetry, viscometry, etc.

**457 Physical Chemistry Laboratory (2)**

Prereq: 456. Continuation of 456.

**458 Chemical Thermodynamics (3)**

Prereq: 455. (fall) Concepts of energy and entropy and their use in predicting feasibility and extent of chemical reactions.

**460 Spectroscopic Methods in Organic Chemistry (3)**

Prereq: 307, 455. (fall) Modern spectroscopic methods as employed in organic chemical research: NMR, IR, UV, ESR and mass spectrometry.

**471 The Physical Chemistry of Macromolecules (3)**

Prereq: 454. (spring) Effects of structure and molecular weight on physical and chemical properties of macromolecules. Topics include molecular weight distribution, solubility, polymer conformation, different types of polymers, synthesis and reactions. Both synthetic and natural polymers considered.

**476 Modern Inorganic Chemistry (4)**

Prereq: 351 or 453 or with 351 or 453. (fall) Considers relationship between physical and chemical properties of inorganic substances and nature of bonding and structures involved.

**477 Synthetic Methods of Inorganic Chemistry (2-3)**

Prereq: 476. (winter) Theoretical principles and practices of synthesis, purification and characterization of inorganic substances. 1 lec, 3-6 lab.

**479 Radiochemistry (4)**

Prereq: 143 or perm. (winter) Applications of isotopes to problems in chemistry; safe handling of radioactive material; detection and determination of radiation. 2 lec, 4 lab.

**480 Advanced Organic Chemistry (4)**

Prereq: perm. (winter) Stereochemistry and reaction mechanisms.

**483 Chemical Separation Methods (4)**

Prereq: 143. (winter) Modern methods of separating components of complex mixtures with emphasis on operation and application to analytical chemistry. Topics include liquid-liquid extractions, partition chromatography, ion-exchange, gas-chromatography, high pressure liquid chromatography, exclusion chromatography, and electrophoresis. 3 lec, 3 lab.

**484 Electrochemical Methods of Analysis (5)**

Prereq: 351 or 453. (spring) Modern electrochemical techniques and instrumentation with emphasis on their applications in analytical chemistry. Topics include introduction to electronic circuits and operational amplifiers, potentiometry, specific ion electrodes, DC and AC polarography, pulse polarography, coulometry, chrono-coulometry, cyclic voltammetry, rapid scan voltammetry.

**485 Spectrochemical Analysis (5)**

Prereq: 351 or 453. (fall) Survey of spectrochemical instrumentation with emphasis on their operation and application in analytical chemistry. Topics include atomic absorption, atomic emission, molecular absorption and molecular emission and will cover emission-absorption phenomena in the X-ray, ultraviolet, visible and infrared regions of electromagnetic spectrum.

**486 Advanced Analytical Chemistry (4)**

Prereq: 455. Fundamental principles of analytical chemistry; a rigorous treatment of equilibrium in aqueous and nonaqueous systems, precipitate formation, electrochemistry, stoichiometry and volumetric methods of analysis.

**488 Chemical Instrumentation (4)**

Prereq: 455. Fundamentals of electronics emphasizing circuitry in modern chemical instruments. 3 lec, 3 lab.

**490 Introduction to Biochemistry (3)**

Prereq: 302 or 307. (fall) Macromolecular structure of biomolecules.

**491 Introduction to Biochemistry (3)**

Prereq: 490. (winter) Bio-energetics, metabolism and metabolic control systems.

**492 Introduction to Biochemistry (3)**

Prereq: 491. (spring) Complex integrated biochemical systems.

**499 Undergraduate Research  
(as recommended)**

Prereq: jr or sr rank with B average in chemistry or perm. Independent work for qualified upper-class chemistry majors.

## CHINESE

See Foreign Languages and Literatures.

## COMPARATIVE ARTS

Courses in introduction to fine arts and history courses in individual content areas.

This sequence of courses is provided for majors in the College of Fine Arts who wish to study the relationship of all the arts, and for all students in the University who wish to elect courses with the basic purpose of understanding their cultural heritage.

The entire sequence of courses will operate as full-year courses on a three-quarter sequence: three quarter hours of credit for each quarter for a total of nine quarter hours.

The courses service the following areas:

1. As humanities requirements for College of Fine Arts majors.
2. As humanities requirements for students in other degree colleges and for transfer students from other universities.
3. Introductory courses serve as state requirements for certification in the College of Education.

**117 Introduction to Fine Arts (3)**

Prereq: open to freshman. Introduction to study of esthetic experience and investigation of concepts of response to that experience as seen from analysis of individual works of art. Examples drawn from media of painting and sculpture, architecture, theater, music, dance and film.

**118 Introduction to Fine Arts (3)**

Prereq: 117. Analysis of form, media and content of major arts.

**119 Introduction to Fine Arts (3)**

Prereq: 117 and 118. Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, film, literature and painting through recognition of common art factors.

**303 History and Criticism of Courtroom Oratory (3)**

(See InCo 353 A,B,C) Famous cases and methods of communication of masters of courtroom and judicial oratory. Cases, trials, including Cicero, Strafford, Charles I, Erskine, Hastings, Marshall, Webster, Darrow, Sacco-Vanzetti.

**304 History and Criticism of Political Oratory (3)**

Methods of communication, rhetorical theories of masters of political oratory. Debates including Burke, Chatham, Pitt, Calhoun, Clay, Webster. Movements including nationalism, imperialism, social and political reform.

**305 History and Criticism of 20th Century Oratory (3)**

Methods of communication of masters of the period. Figures: Hitler, Mussolini, Lenin, Wilson, Churchill, Roosevelt, Kennedy, King. Movements: rhetoric of revolution, nationalism, facism, socialism, communism, republicanism.

**311 History of Painting and Sculpture (3)**

Periods, styles and great personalities from early times to present. Analysis of esthetic qualities in masterpieces of art.

**312 History of Painting and Sculpture (3)**

Prereq: 311. Periods, styles and great personalities from early times to present. Analysis of esthetic qualities in masterpieces of art.

**313 History of Painting and Sculpture (3)**

Prereq: 312. Periods, styles and great personalities from early times to present. Analysis of esthetic qualities in masterpieces of art.

**317 Problems in Comparative Arts (3)**

Prereq: not open to fr. (fall) Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature and painting through recognition of common art factors.

**318 Problems in Comparative Arts (3)**

Prereq: 317, not open to fr. (winter) Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature and painting through recognition of common art factors.

**319 Problems in Comparative Arts (3)**

Prereq: 317 and 318, not open to fr. (spring) Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature and painting through recognition of common art factors.

**321 History and Literature of Music (3)**

Prereq: Mus 103. *R. Wetzel*. History of music with survey of musical literature to 1450.

**322 History and Literature of Music (3)**

Prereq: 321 or Mus 321. *R. Wetzel*. History of

music with survey of musical literature, 1450-1720.

**323 History and Literature of Music (3)**

Prereq: 322 or Mus 322. *R. Wetzel*. History of music with survey of musical literature, 1720 to present.

**351 History of Architecture (3)**

(fall) History of interaction of man and his physical environment with particular emphasis upon relationship of cultural forces and visual forms of major historical periods of western world.

**352 History of Architecture (3)**

Prereq: 351. (winter) Continuation of 351. See 351 for description.

**353 History of Architecture (3)**

Prereq: 351 and 352. (spring) Continuation of 352. See 351 for description.

**370 History of Theater I (3)**

*S. Quinn*. Development of theater and drama in western world. 370: prehistoric, Greek and Roman periods; 371: Medieval and Renaissance; 372: from Renaissance to modern. 3 lec.

**371 History of Theater II (3)**

Prereq: 370. Continuation of 370. See 370 for description.

**372 History of Theater III (3)**

Prereq: 371. Continuation of 370 and 371. See 370 for description.

**470 Greek Theater and Drama (4)**

(fall, odd academic years) Drama, theater and audience in ancient Greece. 3 lec.

**471 Roman and Medieval Theater (4)**

(winter, odd academic years) Intensive study of drama and theater of Roman and Medieval Europe. 3 lec.

**472 Renaissance Theater and Drama (4)**

(spring, odd academic years) Development of European theater and drama in Renaissance. 3 lec.

**473 Restoration and 18th Century Theater (4)**

(spring, odd academic years) Drama, theater and audience in England from Restoration through 18th century. 3 lec.

**474 Baroque European Theater (4)**

(fall, even academic years) Detailed study of theater and drama of Europe in Baroque period. 3 lec.

**475 19th Century European Theater (4)**

(winter, even academic years) Major developments in drama and theater in Europe during 19th century. 3 lec.

**476 Contemporary Theater (4)**

(spring, even academic years) Trends and developments in 20th century theater. 3 lec.

**477 American Theater and Drama (4)**

(spring, even academic years) Development of theater and drama in North America from colonial to modern times. 3 lec.

**481 Individual Problems (1-6)**

Prereq: open to srs only; perm.

## COMPUTER SCIENCE

The major requirement for the BS or BA degree is a minimum of 40 hours not including 251, 252, 253, 254 or 100-level courses. Nine of the 40 hours must be at the 400 level or above.

**150 Computer Science-Survey (3)**

Digital computer machine, its components, operation, control, history and use. Particular emphasis placed on developing influence of digital computer in business, science and humanities. Automation examined.

**201 Introduction to Computing (5)**

Prereq: 3 yrs h.s. math. Algorithms, programs and computers. Basic programming and program structure. Programming and computing systems. Debugging and verification of programs. Data representation. Organization and characteristics of computers. Survey of computers, languages, systems and applications. Computer solution of several numerical and nonnumerical problems using 1 or more programming languages.

**202 Computers and Programming (5)**

Prereq: 201. Computer structure, machine language, instruction execution, addressing techniques and digital representation of data. Computer systems organization, logic design, microprogramming and interpreters. Symbolic coding and assembly systems, macro definition and generation and program segmentation and linkage. Systems and utility programs, programming techniques and recent developments in computing. Several computer projects to illustrate basic machine structure and programming techniques.

**252 Introduction to Digital Computer Programming for Business (5)**

Principles and practice of computer solution of problems in business. Typical problems exist in accounting, quantitative methods and management. COBOL is used.

**253 Introduction to Digital Computer Programming for Engineering and the Physical Sciences (5)**

Prereq: Math 263A-B-C. Principles and practice

of computer solution of problems involving extensive numerical calculations as found in physical sciences, engineering and numerical mathematics.

#### **254 Introduction to Digital Computer Programming for Behavioral, Educational and Biological Sciences (5)**

Prereq: soph rank. Problem organization for computer solution using scientifically oriented algorithmic languages such as FORTRAN and PL/1. Concepts of and practice in logical problem analysis, artificial language syntax and semantics, problem flow, testing and debugging, input/output, artificial intelligence and use of auxiliary storage using appropriate problems in student's field of interest.

#### **308 Introduction to Discrete Structures (5)**

Prereq: 201. Review of set algebra including mappings and relations. Algebraic structures including semigroups and groups. Elements of theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science.

#### **341A Programming Languages (5)**

Prereq: 202 and 308. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, prefix and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, co-routines and tasks. List processing, string manipulation, data description and simulation languages. Run-time representation of program and data structures.

#### **341B Compiler Construction (5)**

Prereq: 341A. Review of program language structures, translation, loading, execution and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques and overall design.

#### **341C Systems Programming (5)**

Prereq: 341A and 376. Review of batch process systems programs, their components, operating characteristics, user services and their limitations. Implementation techniques for parallel processing of input/output and interrupt handling. Overall structure of multiprogramming systems on multi-processor hardware configurations. Details on addressing techniques, core management, system accounting and other user-related services. Traffic control interprocess communication, design of system modules and interfaces. System updating, documentation and operation.

#### **376 Data Structures (5)**

Prereq: 202 and 308. Basic concepts of data. Linear lists, strings, arrays and orthogonal lists. Representation of trees and graphs. Storage systems and structures and storage allocation and collection. Multilinked structures. Symbol tables and searching techniques. Formal specification of data structures, data structures in programming languages and generalized data management systems.

#### **381 Information Organization and Retrieval (5)**

Prereq: 376. Structure of semiformal languages and models for representation of structured information. Aspects of natural language processing on digital computers. Analysis of information content by statistical, syntactic and logical methods. Search and matching techniques. Automatic retrieval systems, question-answering systems. Production of secondary outputs. Evaluation of retrieval effectiveness.

#### **401 Mathematical Models of Sequential Machines (5)**

Prereq: 308 or Math 214. Definition and representation of finite state automata and sequential machines. Equivalence of states and machines, congruence, reduced machines and analysis and synthesis of machines. Decision problems of finite automata, partitions with substitution property, generalized and incomplete machines, semigroups and machines, probabilistic automata and other topics.

#### **402 Theory of Computability (5)**

Prereq: 308 or Math 214. Introduction to Turing machines, Wang machines, Shepherdson-Sturgis and other machines. Godel numbering and unsolvability results, halting problem, Post's correspondence problem and relative uncomputability. Machines with restricted memory access, limited memory and limited computing time. Recursive function theory and complexity classification. Models of computation including relationships to algorithms and programming.

#### **405A Modeling and Analysis of Computer Systems (5)**

Prereq: 381 and statistics. Computer systems characterized by hardware, software and operating environment which can be evaluated. Models of portions or functions of batch, time-sharing or real-time computer systems developed and analyzed. Simulation, queuing, scheduling methods and probability and statistics used as tools.

#### **405B Modeling and Analysis of Computer Systems (5)**

Prereq: 405A. Continuation of 405A.

#### **410 Formal Languages and Syntactic Analysis (5)**

Prereq: 341A, 376. Definition of formal grammars: arithmetic expressions and precedence

grammars, context-free and finite-state grammars. Algorithms for syntactic analysis: recognizers, backtracking, operator precedence techniques. Semantics of grammatical constructs: reductive grammars. Floyd productions, simple syntactical compilation. Relationship between formal languages and automata.

**411 Artificial Intelligence and Heuristic Programming (5)**

Prereq: 376. Definition of heuristic versus algorithmic methods, rationale of heuristic approach, description of cognitive processes and approaches to mathematical invention. Objectives of work in artificial intelligence, simulation of cognitive behavior and self-organizing systems. Heuristic programming techniques including use of list processing languages. Survey of examples from representative application areas. Mind-brain problem and nature of intelligence. Class and individual projects to illustrate basic concepts.

**490 Special Problems in Computer Science (1-15)**

Prereq: perm. Special project in 1 of various sub-fields of computer science or application area studied, investigated and/or solved by individual student or small group working in close relationship with instructor. Suitable problems might include construction of compiler for special purpose artificial language, perfection of computer code to solve some significant problem or study of coherent sub-field of computer science. May be repeated for credit.

**491 Senior Seminar (1)**

Prereq: sr rank. Formal presentation by individual students of specified topics from current literature in computer science and defense of interpretations or conclusions.

**492 Senior Seminar (1)**

Prereq: 491. Continuation of 491. See 491 for description.

**493 Senior Seminar (1)**

Prereq: 492. Continuation of 491-492. See 491 for description.

## DANCE

**101 Dance Theory and Practice I (6)**

Prereq: perm and audition. Basic dance technique, improvisation and composition. Survey of dance in 20th century.

**102 Dance Theory and Practice II (6)**

Prereq: 101 or equiv. Basic dance technique, improvisation and composition. Survey of dance in 20th century.

**103 Dance Theory and Practice III (6)**

Prereq: 102 or equiv. Basic dance technique, improvisation and composition. Survey of dance in 20th century.

**111 Music for Dance I (2)**

Nature and principles of rhythmic structure in dance and music.

**120 Dance Technique (2)**

(A) Modern dance, (B) ballet, (C) ethnic dance.

**201 Intermediate Dance Theory and Practice I (6)**

Prereq: 103 or equiv. Intermediate dance technique, improvisation and composition. Anthropological basis for dance as evidenced in ritual and mythic forms.

**202 Intermediate Dance Theory and Practice II (6)**

Prereq: 201 or equiv. Intermediate dance technique, improvisation and composition. Anthropological basis for dance as evidenced in ritual and mythic forms.

**203 Intermediate Dance Theory and Practice III (6)**

Prereq: 202 or equiv. Intermediate dance technique, improvisation and composition. Anthropological basis for dance as evidenced in ritual and mythic forms.

**212 Dance Notation I (2)**

Prereq: perm of instructor. Principles of dance notation.

**220 Dance Technique II (2)**

Prereq: 120 or equiv. (A) Modern dance, (B) ballet, (C) ethnic dance.

**240 Laboratory in Educational Dance (1, max 12)**

Prereq: perm of instructor. Opportunity to be an apprentice and to do supervised teaching in Dance Laboratory School. May be repeated.

**250 Ethnic Dance of Nonwestern Cultures (2)**

Dances from selected nonwestern cultures with emphasis on style and related folklore.

**255 Ethnic Dance of Western Cultures (2)**

Dances from selected western cultures with emphasis on style and related folklore.

**301 Advanced Dance Theory and Practice I (6)**

Prereq: 203 or equiv. Advanced dance technique and choreography. Analysis of contemporary and historical dance works.

**302 Advanced Dance Theory and Practice II (6)**

Prereq: 301 or equiv. Advanced dance technique and choreography. Analysis of contemporary and historical dance works.

**303 Advanced Dance Theory and Practice III (6)**

Prereq: 302 or equiv. Advanced dance technique and choreography. Analysis of contemporary and historical dance works.

**312 Music for Dance II (2)**

Prereq: 111 or equiv. Also for music composition majors who wish to write for dance theater. History of music for dance. Choreographer-composer relationship.

**320 Dance Technique III (2)**

Prereq: 220 or equiv. (A) Modern dance, (B) ballet, (C) ethnic dance.

**351 Dance Cultures of the World I (4)**

Introduction to dance cultures of the world (excluding western art dance). Function of dance in society and its relationship to other arts.

**352 Dance Cultures of the World II (4)**

Introduction to dance cultures of the world (excluding western art dance). Function of dance in society and its relationship to other arts.

**353 Dance Cultures of the World III (4)**

Introduction to dance cultures of the world (excluding western art dance). Function of dance in society and its relationship to other arts.

**380 University Dance Company (1, max 12)**

Prereq: perm of instructor and audition. Participation in performing company. May be repeated.

**401 Independent Choreography and Experimental Production I (6)**

Prereq: 303 or equiv. Advanced dance technique and experimental dance production.

**402 Independent Choreography and Experimental Production II (6)**

Prereq: 401 or equiv. Advanced dance technique and experimental dance production.

**403 Independent Choreography and Experimental Production III (6)**

Prereq: 402 or equiv. Advanced dance technique and experimental dance production.

**411 Dance Notation II (2)**

Prereq: 212 or equiv. Continuation of 212 with more advanced reading and writing in notation.

**413 Dance Notation III (3)**

Prereq: 411 or equiv. Continuation of 411 with more advanced reading and writing in notation.

**420 Dance Technique IV (2)**

Prereq: 320 or equiv. (A) Modern dance, (B) ballet, (C) ethnic dance.

**441 Teaching Dance I (2)**

Prereq: at least 1 qtr 240 or equiv taken concurrently. Principles of teaching dance and their practical application. Dance for children.

**442 Teaching of Dance II (2)**

Prereq: at least 1 qtr of 240 or equiv taken concurrently. Principles of teaching dance and their practical application. Dance for adolescents.

**443 Teaching of Dance III (2)**

Prereq: at least 1 qtr of 240 or equiv taken concurrently. Principles of teaching dance and their practical application. Dance for adults.

**471 History of Dance I (4)**

Development of western dance in the 19th and 20th centuries with emphasis on ballet and modern dance.

**472 History of Dance II (4)**

Survey of dance forms and their functions; dance motivation from sympathetic magic in tribal societies; in mythic ritual and in dance-drama.

**473 History of Dance III (4)**

Survey of dance from early Christian church through Baroque period.

**480 Production Problems for Dance Theater (2)**

Prereq: perm of instructor. Production problems involved with dance events including design, lighting, costume and administrative procedures.

**490 Independent Study (1-10)**

Prereq: perm of instructor.

## ECONOMIC EDUCATION

**346 Economics in the Curriculum (3-5)**

For teacher-education students designed to provide study of (1) fundamental economic concepts, (2) methods of inquiry employed by economist and (3) relationship of economics content to classroom instruction and instructional materials.

**447 Economic Analysis and Its Application to the Curriculum (2-5)**

Prereq: 346 or HE majors. For elementary and secondary teachers. Designed to emphasize methods of inquiry employed by economists and their application to theories of instruction.

**448 Economic Policy and Its Application to the Curriculum (2-5)**

For elementary and secondary teachers designed to provide application of economic analysis to economic policy and courses of study.

**449 Economic Education Programs (3-5)**

Economic education in schools. Administrative and organizational structures, current curriculum development projects, essential economic understandings that should be taught and their place in curriculum, ways to improve economic education and economic education organizations.

**491 Seminar (3-5)**

Prereq: perm. Selected topics of current interest in economic education.

**492 Research (3-5)**

Prereq: perm. Methodology, analysis of data and preparation of research findings.

**493 Readings (1-15)**

Prereq: perm. Readings in selected areas of economic education.

**497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of economic education under direction of faculty member.

**498 Internship (1-15)**

Prereq: perm.

## ECONOMICS

Two opportunities are open to students interested in majoring in economics: a liberal arts program in the College of Arts and Sciences and a business economics program in the College of Business Administration.

Majors in economics in the College of Arts and Sciences must complete the AB degree requirements of the college and, in addition, take at least 36 hours of economics including eight hours of Principles of Economics, Econ 303, 304 and 381.

Majors in business economics in the College of Business Administration must complete the BBA degree requirements in the college and take at least 20 additional hours of economics, excluding 381.

**101 Principles (4)**

Prereq: not open to jrs and srs. Basic theory of national income analysis. Economic problems and economic institutions of society.

**102 Principles (4)**

Prereq: 101. Continuation of 101. Basic theory and economic analysis of prices, markets, production, wages, interest, rent and profits.

**H201 Economics for Honors College Students (4)**

Prereq: enrollment in Honors College. Economic theory, history and statistics. Development of analytical framework for understanding contemporary economic issues and trends. Discussion, problem-solving, reports emphasizing student participation.

**H202 Economics for Honors College Students (4)**

Prereq: H201. Continuation of H201. See H201 for description.

**301 Introduction to Economic Analysis (4)**

Prereq: not open to fr or to those who have had 101 and 102. Description same as for 101 but content treated at more advanced level.

**302 Introduction to Economic Analysis (4)**

Prereq: 301. Continuation of 301. See 102 for description, but content treated at more advanced level.

**213 Current Economic Problems (4)**

Prereq: 102 or 302. Application of economic theory to current economic problems with emphasis upon public policy implications. Depressed areas, technological unemployment, economic growth, inflation and agricultural instability considered.

**214 The Economics of War and Peace (4)**

Prereq: 102 or 302. Application of techniques of economic analysis to examination of various aspects of national military involvement. Includes consideration of both microeconomic and macroeconomic implications of war and peace.

**231 Government Regulation of Business (4)**

Prereq: 102 or 302. Market structure, market conduct and market performance in American industry. Emphasis on developing theoretical framework for evaluating efficiency of industry. Merger activity examined historically and its causes determined. Characteristics of principal manufacturing and processing enterprises evaluated. Contribution of theory of industrial organization to macroeconomic theory and microeconomic theory discussed.

**260 Money and Banking (4)**

Prereq: 101 or 301. Nature of money, debt and credit; relations between money, finance and economic activity.

**303 Microeconomics (4)**

Prereq: 101 or 301, jr; soph if major. Price system as an allocative mechanism. Price and production policies of individual firms and consumers under alternative market conditions and analysis of these policies on social efficiency of resource allocation. Students expected to have an understanding of elementary algebra and geometry.

**304 Macroeconomics (4)**

Prereq: 101 or 301, jr; soph if major. Factors determining level of nation's economic activity and responsible for growth and stability in nation's economy. Part of course devoted to measures of national income while remainder consists of analysis of interrelationships among production, price levels, relative prices, employment and capital formation. Students expected to have an understanding of elementary algebra and geometry.



**305 Managerial Economics (4)**

Prereq: 303. Analysis of decision-making in enterprise; market environment measurement of influence of policy and nonpolicy variables on sales and costs; sales, cost and profit forecasting; empirical studies of market structure and pricing; may include various applications of linear programming.

**307 History of Economic Thought (4)**

Prereq: 102 or 302 or 303. Evolution of major economic doctrines: mercantilists and cameralists, physiocrats, Adam Smith and classical school, historical school, Austrian school, Alfred Marshall and neoclassicists.

**308 Modern Economic Thought (4)**

Prereq: 102 or 302 or 303. Contributions to economics of most significant writers since Alfred Marshall.

**309 Institutional Economics (4)**

Prereq: 102 or 302 or 303. Economic theory and policy contributions of Veblen, Commons, Ayres and other modern dissenters from traditional economic thought. Principles of technological progress and institutional adjustment; influence on contemporary theory and policy.

**310 Urban Economics (4 or 5)**

Prereq: 102 or 302 or 303. Application of economic analysis to urban problems; urban economic growth and structure (location patterns, land use and environment, urban transportation and housing); human resources in urban economies and public sector in a metropolitan context.

**311 Inequality of Personal Wealth and Income (4)**

Prereq: any course in statistics. Quantitative and qualitative differences in wealth and income between low, middle and high income groups in a society using historical, statistical and mathematical techniques. Open to all students.

**312 Economics of Poverty (4)**

Prereq: 102 or 302 or 303. Incidence, causes and consequences of poverty in the United States. Economic theory, history, statistics applied to analysis of poverty-reduction measures.

**313 Economics of the Environment (4)**

Prereq: 102 or 302 or 303. Economic analysis of such environmental matters as air, water and noise pollution, population growth and land use. Emphasis placed on use of economic theory and empirical research in evaluating environmental policies.

**320 Labor Economics (4)**

Prereq: 102 or 302 or 303. Economic forces generating modern labor problems. History of labor movement; labor in politics; labor-management relations; wages and full employment.

**321 Labor Legislation (4)**

Prereq: 102 or 302 or 303. Law bearing upon labor problems. Labor-relations legislation, old-age and unemployment insurance, workmen's compensation and wages-and-hours legislation.

**322 Economics of Human Resources (4)**

Prereq: 102 or 302 or 303. Current developments in theory, empirical research and policy with respect to investment in human resources, economic value of education, manpower programs and growth.

**332 Industrial Organization (4)**

Prereq: 303. Social consequences of monopoly and competition. Various policy prescriptions dealing with economic concentration and market structure considered, as well as impact of these policies on United States business. Government regulation of business reviewed and evaluated.

**333 Government and Agriculture (4 or 5)**

Prereq: 102 or 302 or 303. Problems of American agriculture as an industry; economics of government policies and programs; consideration of forces and objectives in policy formation.

**334 Public Utilities (3 or 4)**

Prereq: 303. Economic basis of public utility concept and its relation to business organization. Nature, scope, development, legal organization and regulation of public utilities.

**340 International Economics (4)**

Prereq: 102 or 302 or 303. Economic relations of nations of the world. Some of topics considered are: economic basis for international trade and investment; mechanics of international exchange; tariffs, quotas, exchange control, cartels and state trading as devices of economic nationalism, and international economic cooperation with special reference to organizations affiliated with United Nations.

**350 Economic Development (4)**

Prereq: 102 or 302 or 303. Nature of, obstacles to and future possibilities for economic growth of nations. Special emphasis given to problems of underdeveloped countries. Studies of selected countries utilized.

**351 Agricultural Development (4)**

Prereq: 102 or 302 or 303. Patterns of agricultural development in United States and selected foreign areas; technological and demographic changes in agriculture; socio-economic problems; marketing arrangements; case studies of specific agricultural development projects.

**352 Economic History of the United States (4 or 5)**

Prereq: 102 or 302 or 303. Economic factors in development of United States including historical growth of economic institutions such as banking,

manufacturing, labor unions and agriculture, from colonial times to present.

### **353 European Economic History (4 or 5)**

Prereq: 102 or 302 or 303. Economic growth of developed countries. Focus on industrial revolutions in Great Britain, France, Germany, Soviet Union and Japan. Historical experience of these countries related to various theories of economic change.

### **354 Latin American Economic History (4)**

Prereq: 102 or 302 or 303. Origins of economic institutions and policies which affect current problems of economic development, e.g. latifundia system, export of primary commodities, private foreign investment, etc. Interrelationship of economic and political factors. Review of Aztec, Inca and colonial economies but greater emphasis on developments in 19th and 20th centuries. Introduction to current economic conditions and government policies, foreign exchange shortage, import substitution, urbanization, etc.

### **370 Comparative Economic Systems (4)**

Prereq: 102 or 302 or 303. Theoretical and institutional characteristics of capitalism and socialism with specific emphasis on prevailing economic systems in United States, England and Russia.

### **371 Economics of Planning (3 or 4)**

Prereq: 102 or 302 or 303. Economics of planning and its major applications to private and public planning; national, regional and local planning; centralized and decentralized planning. Procedures and techniques of planning; organization, economic analysis, social accounting, input-output analysis, linear programming, location theory, industrial complex analysis; gravity, potential and spatial models, computers and planning; research and development.

### **372 Economics of the Soviet Union (4 or 5)**

Prereq: 102 or 302 or 303. Operation of economy of Soviet Union. Allocation of resources, planning saving and investment, agriculture, public finance, price system and international trade.

### **380 Mathematics for Economists (4 or 5)**

Prereq: 102 or 302 or perm. Mathematical analysis in economics. Calculus and matrix algebra techniques used prominently in economics literature, together with their application to selected problems in economics.

### **381 Statistics for Economists (4)**

Prereq: 102 or 302 or perm. Statistical methods used in economics with special emphasis on time series and regression analyses.

### **385 An Introduction to Economic Methodology and Research (4)**

Prereq: 303, 304 and statistics. Methods used by economists in investigation of economic prob-

lems. First part involves research methods, including contemporary statistical estimation techniques. Second part applies these techniques to investigation of economic phenomena. Types of application include construction and testing of a simple econometric model, estimation of production functions, evaluating theories of factor pricing, estimating social costs of pollution, etc.

### **406 Stabilization Policy (4)**

Prereq: 303 and 304. Use of economic theory to formulate monetary and fiscal policies for minimizing cyclical fluctuations in economic activity.

### **415 Regional Analysis (4 or 5)**

Prereq: 303 or 304. Theories of regional and interregional relationships and policies for regional development. Consideration of economic, geographic, demographic, political and social factors.

### **430 Public Finance (4)**

Prereq: 303 or perm. Role played by government as user of economic resources and redistributor of incomes. Some questions explored: need for government's entry into economy, optimal size of government, selection of tax and expenditures schemes and effects of government economic activity on private sector.

### **431 Economics of Transportation (3 or 4)**

Prereq: 303. Economics of transport pricing; regulations of transport and national transport policy.

### **441 International Economic Policy (4)**

Prereq: 304, 340. Current economic developments of foreign and United States economic policy. National and international aspects of policy will include tariffs, controlled trade, international agreements, commercial treaties, foreign exchange control, clearing agreements, international liquidity controversy and contemporary balance of payments problems. Roles of institutions such as world bank and International Monetary Fund discussed with emphasis on interaction of domestic and international goals and policies.

### **455 African Economic Development (4)**

Prereq: 350 or perm. Economic characteristics of African societies as traditional economies and in process of modernization.

### **461 Monetary History of the United States (4)**

Prereq: 260 or 304. Correlation of developments in American history with development of monetary institutions, policy and theory. Evolution of commercial and central banking and relationship of these to economic activity in history of United States.

### **473 Economics of Southeast Asia (4 or 5)**

Prereq: 350 or perm. Economic characteristics, development problems, strategies and prospects of countries of Southeast Asia.

**474 Economics of Latin America (4)**

Prereq: 350 or 354 or perm. Characteristics of economies of Latin American countries. Particular emphasis on prospects for economic development of the region and nature and origin of institutional obstacles to economic change. Economic heritage of colonial period and subsequent evolution of economic institutions, resources of the area and their utilization and trends in economic activity and policy in post-WW II period.

**475 Chinese Economy (4 or 5)**

Prereq: 350 or perm. Introductory familiarization with Chinese economy. China's early industrialization, 1880-1931, socialist transformation of each economic sector, 1949-1966, overall performance of Chinese economy and each economic sector and Maoist revision of orthodox Marxist-Leninist economic doctrines.

**482 Introduction to Econometrics (4 or 5)**

Prereq: 303, 304 and statistics. Applications of statistics to economics. Design and estimation of economic models. Estimation of simultaneous equation systems.

**491 Seminar (3, 4 or 5)**

Prereq: perm. Selected topics of current interest in economics area.

**493 Readings (1-15)**

Prereq: perm. Readings in selected fields of economics. Topics selected by student in consultation with faculty member.

**493X Readings (1-15)**

Prereq: perm. Study abroad.

**495 Research (3, 4 or 5)**

Prereq: perm. Methodology, analysis of data and preparation of research findings.

**497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of economics under direction of faculty member.

## International and Comparative Education

### Secondary Education

### Special Education

## Professional Laboratory Experiences

## APPLIED BEHAVIORAL SCIENCES AND EDUCATIONAL LEADERSHIP

### Guidance, Counseling and Student Personnel Services

**400 Special Topic Seminar (3)**

Prereq: perm. Seminar for undergraduates considering topics and literature in the behavioral science area.

**410 Human Relations (3)**

Interpersonal relationships, both content and process oriented. Lectures and discussion groups focus upon dynamics of human relationships, factors fostering effective interaction and significance of self concepts in human communication.

**420 Guidance Practices in Elementary Schools (4)**

Need, scope and nature of elementary guidance are surveyed. Major emphasis on teacher's guidance responsibilities. Guidance approaches and procedures examined for their usefulness in working with children and parents. Techniques of appraising and changing attitudes and behavior studied. Roles of elementary school counselor and other pupil personnel specialists reviewed for their contribution to growth and development of children. Opportunity for students to achieve greater self-understanding through involvement in self appraisal.

**430 Guidance in American Secondary Schools (4)**

Basic foundations of high school guidance. Introduction to dynamics of adolescence. Use of pupil-centered appraisal tools and procedures, community resources and informational services.

**440 Foundations in Group Dynamics (4)**

General principles and basic techniques of group dynamics. Interaction in human relations situations that occur in residence halls, classrooms, business and community situations. Through individual readings and group participation, students learn to understand and use group dynamics principles in areas of personal and professional interaction.

## EDUCATION

### Applied Behavioral Science and Educational Leadership

#### Guidance, Counseling and Student Personnel Services

### Curriculum and Instruction

#### Curriculum and Instruction

#### Educational Media

#### Elementary Education

## CURRICULUM AND INSTRUCTION

### Curriculum and Instruction

#### 275 Learning Processes in the Classroom (5)

Prereq: Psy 101 (not available to students who have taken Psy 275). Focuses on major aspects of learning theories, their implication and applications to classroom situations as well as aspects of measurement and evaluation.

#### 492 Workshop in Curriculum and Instruction (1-15)

Prereq: perm. Designed to provide practicing teachers and other instructional personnel with in-service education directed toward their identified needs. Facilitates offering of short courses, workshops and summer institutes. Areas of concentration currently available: A. Language Arts, B. Social Studies, C. Science, D. Mathematics, E. Reading, F. Kindergarten, G. Individualizing Instruction, H. Team Teaching, I. Interaction Analysis, J. Developing Behavioral Objectives, K. Curriculum Development, L. Interdisciplinary Topics, M. Special Topics, N. Special Education Topics, O. Supervision of Instruction.

### Educational Media

#### 480 Introduction to Educational Media (4)

Prereq: jr rank. *J. McCutcheon, S. Roberts, S. Strother*. Application of principles of instructional materials and media to teacher-student communication. Basic experiences provided in production of instructional materials and equipment operation.

#### 481 Production of Instructional Materials (3)

Prereq: jr rank and 480, or perm of instructor. *J. McCutcheon, S. Strother*. Develops basic pattern for preparation of wide variety of locally produced, inexpensive instructional materials. Includes laboratory experience in manipulation of pictures, lettering, coloring, preservation and reproduction techniques used in creating instructional pictures, slides, transparencies and other projected and nonprojected materials.

#### 482 Organization and Administration of Educational Media Programs (5)

Prereq: jr rank. *S. Strother*. Organization and administration practices for educational media programs in individual schools and districts considered. Emphasis on budget procedures, evaluation techniques, staffing and acquisitions.

#### 489 Practicum in Educational Media (3)

Prereq: jr rank. *J. McCutcheon, S. Roberts, S. Strother*. Course participants will examine media centers with a view to practical experience pertaining to center operations. Class time devoted to comparative analysis of center programs.

### Elementary Education

#### 200 Studies of Children (4)

Prereq: admission to teacher education. *J. Brunk, S. Navin*. Bases for a developmental theory of education; growth sequences through adolescence; principles of development, behavior and learning; techniques of child-study; implications for educational practice. No credit awarded if HECF 160 or Psy 173 have been taken.

#### 304 The Development of Kindergarten Education (3)

Prereq: 200 or HEc 160 and jr standing. History, development, philosophy and current trends in kindergarten education.

#### 305 Materials and Methods in Kindergarten-Primary Education (3)

Prereq: 200 and 304. Work and play activities of early childhood and development, use and care of materials best suited to this age group.

#### 310 The Teaching of Reading and Language Arts in the Elementary School (6)

Prereq: jr standing in teacher education. *W. Cooper, B. van der Veur, staff*. Preservice preparation for developmental teaching of reading; text and supplementary readings, lectures and discussions, films and other resources, observations and projects for practical competence.

#### 321 Children's Literature (4)

Prereq: jr standing in teacher education. *R. Pimney, D. Leighty*. Criteria for selection of children's literature, children's reading interests, preparation of materials for use in literature program, use of choral reading and verse choir, and reading of outstanding literature for children.

#### 330 Teaching of Mathematics in the Elementary School (4)

Prereq: 9 hrs of math, including Math 120 and jr standing in teacher education. *C. Smith, C. D'Augustine*. Methods of teaching numbers, numeration, operations, relations, problem solving, measurement and geometry.

#### 340 Teaching of Science in the Elementary School (4)

Prereq: jr standing in teacher education; 12 hrs of science including biology and physical science. *L. Mills, P. Ploutz*. Materials and methods of teaching science in elementary schools. Textbooks, science equipment and related instructional materials used in lab lessons.

#### 350 Teaching of Social Studies in the Elementary School (4)

Prereq: 12 hrs of social science including Geog 121, jr standing in teacher education. *M. Felsing, A. Leep*. Materials and methods in teaching content subjects in elementary schools with

special emphasis upon practical experience in social studies unit teaching and skills.

#### **400 Advanced Studies of Children (3)**

Prereq: 20 hrs of education or psychology. *J. Brunk, S. Navin*. Intensive study of biological and environmental influences on human development from conception to maturity.

#### **407 Evaluation in the Elementary School (3)**

Prereq: 16 hrs of education. *Staff*. Standardized tests in elementary school with emphasis on selection, interpretation and use. Teacher-made tests, check lists, rating scales and anecdotal records. Elementary statistical treatment of test scores and grading.

#### **411 Diagnosis and Treatment of Reading Disabilities (4)**

Prereq: 310, perm. *W. Cooper, B. van der Veur*. Correlates of variability in reading proficiency. Incidence of retardation and disability. Proposed causes of failure and concept of multiple causation. Specialized materials and instructional efforts. Systematic observation of cases of reading disability and preparation of case report.

#### **412 Reading Laboratory Practicum (4, max 12)**

Prereq: sr rank. *W. Cooper*. Application of developmental approach to problem cases in reading instruction, participation in diagnostic examination, parent and teacher conferences, individual procedures in tutoring, staffing of cases and preparation of reports. (Weekly group discussion period, lab sessions arranged.)

#### **430 Modern Elementary Mathematics Curriculum (3)**

Prereq: 330. *C. Smith, C. D'Augustine*. Modern elementary mathematics curriculum with emphasis on why changes are occurring. Nature of changes as reflected from experimental programs; effect of changes on methods of teaching. Implementation of these changes in classroom.

#### **460 The Child and the Curriculum (4)**

Prereq: student teaching (Academic yr plus 1st term of Summer Session). *K. Weimer*. Develops purpose for elementary education through study and research of curriculum and learning problems. Emphasis on service role of elementary school curriculum to child and society and, role of teacher in laying educational foundations in development of self worth for each child.

#### **490 Study in Elementary Education (1-5, max 15)**

Prereq: perm of dept chairman. Independent and/or group study of some special interest and concern (problems, area, questions) under guidance of staff; assigned and suggested readings and other resources and experiences; frequent conferences; preparation of final report.

## **International and Comparative Education**

#### **420 Comparative Cultures and Education (4)**

Prereq: perm. (fall, spring) *S. Samaan*. Emphasis on distinctive cultural, economic and political forces which shape patterns, problems and roles of education in some selected developed and developing nations. These include United States, some European countries and at least one African and/or Asiatic nation where a former or present western culture has an impact. Assessment of this impact especially on educational developments.

#### **425A Education and Development in Africa (4)**

Prereq: perm. (winter) *S. Samaan*. Interdisciplinary course focusing on tradition and change in African societies, problems of political independence, economic development, cultural values in transition, tribalism and nationalism and role of Africa in world peace and international cooperation. Tradition and change in African education, landmarks in African educational developments and role of education in economic and technological development. Issues and problems in African education.

#### **425B Education and Development in Asia (4)**

Prereq: perm. Same emphasis as 425A on tradition and change in society, culture and education, and role of education in national development and international understanding; discussion of pertinent educational issues and problems.

#### **425C Education and Development in Latin America (4)**

Prereq: perm. Same emphasis as 425A-425B, on tradition and change in society, culture and education and role of education in national development and international understanding; discussion of pertinent educational issues and problems.

#### **432 Perspectives in International Education (4)**

Prereq: perm. *S. Samaan*. Interdisciplinary course dealing with concept and issues of international understanding, its psychological, economic and political preconditions; perceptions, values and attitudes that constitute or impede understanding among individuals, groups, races and nations; human and cultural dimensions in technical assistance programs and in international relations; role of education in attitude change and formation relative to international understanding and development.

#### **450 Teaching Strategies for Cultural and International Understanding (4)**

Prereq: perm, sr rank and student teaching. *M. Felsing*. Psychological and sociological foundations of cultural values and ways of life investigated. Strategies for developing cross-cultural

understanding and cooperation studied and developed. Emphasis on innovative approaches to learning for elementary and secondary school pupils. Practicum provided.

## Secondary Education

### 250 Analysis of Teaching (4)

Prereq: admission to teacher education or perm of education personnel dean. Immediate focus upon teaching act with training in the systematic observation and analysis. Peer teaching, laboratory use of instructional media and tools for self-analysis. 3 lec, 2 lab.

### 351 Instructional Process and Curriculum (5)

Prereq: 250 and admission to jr standing in teacher education, or perm of education personnel dean. Focus on current teaching techniques and materials. Continued emphasis on lab experiences and use of media. 4 lec, 2 lab.

### 420 Teaching Reading in the Junior and Senior High School (5)

Prereq: 9 hrs and educational psychology. *J. Mangieri*. Materials, methods and developmental patterns of adolescents in reading. Remedial programs and adaptation of materials to adolescent.

### 432 Evaluating Pupil Progress in Secondary Schools (3)

(spring) Test construction, teacher-made tests, standardized tests and instructional objectives of testing. Test evaluation, score interpretation and relation of tests to student development.

### 470 Teaching of Bookkeeping and Basic Business (3)

Prereq: 351 and Acct 303. (fall) Materials, methods and techniques in teaching bookkeeping and basic business subjects.

### 471 Teaching Mathematics in Middle and Junior High School (3)

(spring) Organization and methods of teaching subject matter of mathematics curriculum in grades 7 and 8. Number system studied.

### 472 Teaching of Earth Science (3)

Prereq: 351. (winter) *R. Skinner*. Instructional materials and techniques related to teaching earth science.

### 478 Teaching of Physical Science (3)

Prereq: 351 and perm. (spring) *R. Mitias*. Instructional materials, classroom methods, sources of lab equipment and supplies and teaching techniques in physical sciences.

### 479 Teaching of the Social Studies in Junior and Senior High Schools (3)

Prereq: 351 and perm. *A. Clubok*. Nature, development, purpose and value of social studies, with emphasis on methods and techniques of instruc-

tion. Curriculum reorganization, unit planning, materials of instruction and evaluation.

### 480 School and Society (3)

Prereq: student teaching or perm. Current trends and issues in American secondary education, utilizing materials drawn from social and cultural foundations of education.

### 490 Studies in Secondary Education (1-5, max 15)

Prereq: perm. Serves a special projects function as defined by chairman of department. Honors students or students seeking honors in secondary education may register for this course.

## Special Education

### 271 Introduction to Education of Exceptional Children and Youth (3)

Prereq: admission to teacher education. *S. Schaaf, Y. Leyser*. Educational needs of exceptional children including gifted, slow learner, trainable and educable mentally retarded, non-sensory neurologically impaired, speech handicapped, aurally and visually impaired and socially and emotionally maladjusted.

### 272 Introduction to Education of Mentally Retarded Children and Youth (3)

Prereq: 271 and admission to teacher education. *Y. Leyser*. Etiology, diagnosis, classification, learning potential and general characteristics of retarded child with emphasis on psychosociological impact of retardation upon individual, his family and community.

### 371 Teaching the Preschool Handicapped (3)

Prereq: admission to jr standing in teacher education. Purpose, organization and methods utilized for education of preschool handicapped including program of home training.

### 372 Language Development for the Handicapped (3)

Prereq: admission to teacher education. *L. Jageman*. Examination of language acquisition of handicapped children with primary emphasis on mental retardation. Methods and materials in evaluation and training of receptive and expressive language presented.

### 373 Curriculum Development for Handicapped Children (3)

Prereq: 272 and admission to teacher education. *L. Jageman*. Organization and development of curriculum including objectives, concepts, methods and materials with emphasis on preparation of resource units.

### 374 Language Arts for the Mentally Retarded (4)

Prereq: admission to jr standing in teacher education and EdEl 310. *S. Schaaf*. Organization of methods and materials for teaching all phases of language skills to the retarded.

**375 Social Studies and Science for the Mentally Retarded (4)**

Prereq: admission to jr standing in teacher education and 374 (374 can be taken concurrently with 375). *A. Allen*. Organization and methods of teaching science and social studies to mentally retarded. In addition to selection planning and teaching of appropriate units in social studies and science, emphasis is placed on implementation of current theory and research to strengthen personal-social-vocational adjustment of mentally retarded.

**376 Mathematics for the Mentally Retarded (2)**

Prereq: admission to jr standing in teacher education. *C. D'Augustine*. Organization methodology and materials for teaching basic math concepts and skills which have particular relevance to social and vocational adequacy of mentally retarded children and youth.

**377 Vocational Education for the Handicapped (3)**

Prereq: admission to jr standing in teacher education and EdSp 374, 375, 376. *A. Allen*. Roles of education, guidance, vocational training, placement and follow-up service in promoting work adjustment of handicapped youth in the community.

**378 Sheltered Workshop Organization (2)**

Prereq: admission to jr standing in teacher education. Organization of sheltered workshop with emphasis on job analysis and contact work.

**379 Homemaking and Family Living for the Handicapped (3)**

Prereq: admission to jr standing in teacher education. Designed to develop understanding of objectives, organization, methods and materials essential to teaching handicapped child self-care, homemaking and family living skills for his youth and adulthood.

**400 Introduction to Emotionally Disturbed Children (3)**

Prereq: admission to jr standing in teacher education. Basic understanding of emotional disturbances including causes, characteristics and implications for behavioral and psycho-educational planning.

**401 Teaching the Emotionally Disturbed Child (3)**

Prereq: admission to jr standing in teacher education. Programs, methods and materials used in education of emotionally disturbed child emphasizing a team-developed prescriptive educational and behavioral procedure.

**435 Recreation and Physical Education for the Mentally Retarded and Learning Disabled (5)**

Prereq: admission to jr standing in teacher edu-

cation. Preparation for presenting activities and evaluating mentally retarded and learning disabled children and youth in areas of body mechanics, physical fitness, games of low organization, sports, rhythms, stunts, tumbling and recreation activities.

**470 Classroom Management with Problem Children (3)**

Prereq: admission to jr standing in teacher education. Discusses preventing behavior problems; identifying specific disturbing behavior; and learning to use behavior modification techniques in classroom.

**474 Diagnosis and Remediation of Specific Learning Disabilities (4)**

Prereq: admission to jr standing in teacher education. *B. Hoffmann*. Techniques of assessing cerebral and perceptual dysfunctions and resultant cognitive and behavioral disorders with emphasis on neurological bases of sensory motor reaching approach to remediation.

**475 Education of the Trainable Retarded (4)**

Prereq: admission to jr standing in teacher education. Etiology, diagnosis, classification, learning potential, organization of curriculum and teaching methodology for trainable retarded, including brain-damaged, cerebral palsied and hyperactive children.

**477 Problems of Adjustment for the Handicapped (3)**

Prereq: admission to jr standing in teacher education. Designed to promote understanding of theory and techniques of working with parents of exceptional children as well as promoting adjustment of child within family and community. Emphasis placed on interpreting conditions of handicap to parents and in helping parents to accept and integrate handicapped child into home and community.

**476 Teaching the Learning Disabled (4)**

Prereq: admission to jr standing in teacher education and EdSp 474. Assignment of an individual child for purpose of doing a comprehensive evaluation of and writing a prescriptive program for the child.

**478 Education of the Disadvantaged and Handicapped (3)**

Prereq: admission to jr standing in teacher education. Problems and new approaches to education of disadvantaged children handicapped through intellectual impairment, sensory deficits, perceptual disorders, etc.

**490 Study of Special Education (1-5, max 15)**

Prereq: admission to jr standing in teacher education and perm from director of special education. Independent analysis of problems, special interests, concerns, with assigned and suggested readings, programmed experiences and preparation of final report, with guidance of staff member.

## PROFESSIONAL LABORATORY EXPERIENCES

### 360 Field Experience in Elementary or Secondary Schools (2)

Prereq: jr rank, perm. (fall) *J. Evans*. Observation and participation for period of 2 wks at opening of school yr in September. Materials for this program available in Student Teaching Office during 1st wk of May each yr. Administrative approval of selected school system required.

### 361 Field Service in Education (2)

Prereq: soph rank. (fall) *J. Evans*. Participation in community agencies, summer camps, recreation programs, Head Start and various school related programs other than September program (EdPL 360). Arrangements should be made during 1st wk of May in Student Teaching Office.

### 460 Observation and Participation in Elementary or Secondary Schools (3)

Prereq: perm. *J. Evans*. Extensive participation in school program extending over period of 1 qtr, designed primarily for students with some classroom teaching experience, especially students from other countries.

### 461 Student Teaching in Elementary Schools (6)

Prereq: perm. *J. Evans, staff*. Assigned responsibility for teaching under supervision of a master teacher in a classroom in K-6 range for 1 qtr, full-time. Concurrent registration in 461, 462 and 465 is required of all elementary education, speech therapy and special education (E) majors. Concurrent registration in 461, 463 and 465 is required of majors in art, music and physical education.

### 462 Student Teaching in Elementary Schools (6)

Prereq: 461. Continuation of 461. See 461 for description.

### 463 Student Teaching in Secondary Schools (6)

Prereq: perm. *J. Evans, staff*. Assigned responsibility for teaching under supervision of a master teacher in a classroom in 7-12 range for 1 qtr, full-time. Concurrent registration in 463-464-465 is required of all majors in secondary academic areas, home economics, special education (S) and industrial arts. Majors in art, music and physical education must register concurrently for 461, 463 and 465.

### 464 Student Teaching in Secondary Schools (6)

Prereq: 463. Continuation of 463. See 463 for description.

### 465 Student Teaching Seminar (3)

*J. Evans, staff*. Analysis and interpretation of student teaching experience. Problem-centered discussion of major areas of concern directly related to classroom teaching. Structured discus-

sion of unit and lesson planning, evaluation, classroom management, pupil adjustment, effects of recent legislation upon classroom teacher, position procurement, professional ethics, and professional organizations. Concurrent enrollment for 12 qtr hrs credit in student teaching is required.

### 466 Student Teaching for Advanced Students (6-9, max 9)

Prereq: perm. *J. Evans, staff*. Supervised observation, participation and limited teaching; open only to elementary education degree candidates and selected secondary education and special education majors with a minimum of 3 yrs of prior teaching experience.

## ENGINEERING AND TECHNOLOGY

### 100 Engineering and Technology (3)

Introductory course to engineering and technology for all students. Lectures in related fields and involvement in engineering problems through student selected projects.

### 134 Electronic Maintenance (2)

To maintain and repair common electronic devices using test equipment. 4 lab.

### 170 Energy and the Environment (3)

(fall, spring) Examinations of ramifications of energy in contemporary society. Energy uses; problems of production; availability of reserves; economic and political considerations; environmental impact; fission, fusion, solar and other future conversion techniques. Course designed to prepare individual for effective participation in societal actions related to energy and power.

### 180 Problem Solving (3)

(fall, spring) Introduction to approach to problem solving by presenting, at fr level, many problems common to all branches of engineering such as balance of forces, materials, energy and transport relationships. Real world problems and situations described in mathematical terms, and alternative methods of problem solutions presented, showing need for more advanced techniques and knowledge that student will acquire in later mathematics, engineering and science courses.

### 180A Problem Solving (3)

Prereq: perm. (summer) Emphasizes problem solving and applications. Topics covered: variables, functions, limits, derivative, differentiation, tangents and normals, problems in maxima and minima, motion, curves and curvature, vectors, polar coordinates, differentials, series.



**180B Problem Solving (3)**

Prereq: perm. (summer) Emphasizes problem solving and application. Topics covered: plane areas, volumes, centroids, moments of inertia, fluid pressure, work, arc length, area of solids, variable properties.

**240 Introduction to Computer Solutions of Engineering Problems (3)**

Prereq: Math 263C or with Math 263C or perm. (fall, winter) Introduction to application of digital computation techniques to engineering problems. Techniques of programming, including FORTRAN, GPSS, etc., useful for solution of engineering problems and use of peripheral equipment.

**320 History of Western Technology (3)**

Survey of significant technological innovations of western civilization from Greco-Roman period into 20th century. Interrelationships, in history, between technology and society. Background in technology or science not required.

**322 Introduction to Materials Behavior (3)**

Introductory materials science course covering behavior of metals, polymers and ceramics for nontechnical majors.

**324 Water Pollution Control (3)**

Prereq: soph rank. Designed for student with limited technical background but who is interested in problems of water pollution. Deals with nature of water, source and character of pollutants, technology of waste-water renovation, ecology of water pollution and legal, economic and administrative constraints.

**325 Pollution Solutions I (3)**

Aspects of air pollution and control within our technology. Problems, solutions and economics of air pollution with guest speakers on topics of class interest.

**326 Pollution Solutions II (3)**

Same course description as 325 covering different aspects and topics. Not a continuation of 325.

**331 Fluid Dynamics for Nonengineers (3)**

Prereq: jr standing or perm. Not open to engineering students. A physical, not mathematical, introduction to principles controlling fluid motions in our environment. Study of weather, blood circulation, aerodynamics, river hydraulics and rocketry through design of golf balls and plumbing systems included. Introduction to mechanics, fluid properties, fluids at rest and in motion. Lectures and reading assignments supplemented with films.

**337 Transportation Today (3)**

Prereq: jr standing or perm, not open to civil engineering majors. Designed for student with limited technical background who is interested

in gaining knowledge in area of highway and transportation planning and design. Major topics include geometric factors, traffic studies, modes of transportation, human equation and planning strategies.

**345 Fundamentals of Analog Computation (3)**

Prereq: Math 340. Basic operation of analog computer and auxiliary equipment. Solution of linear and nonlinear differential equations and simulation of physical systems on analog computer.

**350 Engineering and the Technological Society (3)**

Prereq: soph or jr rank. (winter) Technical inventions and social inventions, impact and social consequences of engineering, alternative features considered. Discussion format used.

**360 Communication Technology (3)**

(winter) Introduction to theory and application of electronic devices and systems employed in communications. Topics include among others man-to-computer communication, CRT terminals, radio and television receivers and transmitters, communication satellites, information transmission by light waves. Not open for credit to engineering majors.

## ENGINEERING, CHEMICAL

**200 Introduction to Chemical Engineering (4)**

Prereq: Chem 122 or 142, Math 263A. (fall, spring) Applications of chemistry, physics and mathematics to solution of material and energy balances typical of those encountered in process industries. 3 lec, 2 lab.

**300 Chemical Engineering Calculations (3)**

Prereq: Math 340. Solution of ordinary differential equations of chemical engineering. Initial and boundary value problems. Orthogonal functions, series solutions, Laplace transforms. Analysis of engineering data. Introduction to partial differential equations.

**302 Chemical Engineering Thermodynamics and Kinetics (4)**

Prereq: 200, Math 263C. (fall) Application of thermodynamics to chemical engineering problems, including problems in chemical equilibrium for homogeneous and heterogeneous systems, mixtures and pure materials. Applications of chemical kinetics to design of chemical reactor systems. 3 lec, 2 lab.

**303 Chemical Engineering Thermodynamics and Kinetics (4)**

Prereq: 302. (winter) Continuation of 302. See 302 for description. 3 lec, 2 lab.

### 304 Chemical Engineering Thermodynamics and Kinetics (4)

Prereq: 300 and 303. (spring) Continuation of 302-303. See 302 for description. 3 lec, 2 lab.

### 331 Principles of Engineering Materials (4)

Prereq: Chem 122 or 142. (fall, spring, summer) Fundamental principles underlying behavior of engineering materials. Relationship between structure and properties of ceramic, metallic and polymeric materials. 4 lec.

### 342 Unit Operations I (5)

Prereq: 200, Math 263C. (fall) Fundamental principles of fluid flow, heat and mass transfer.

### 343 Unit Operations II (4)

Prereq: 342. (winter) Continuation of 342. See 342 for description. 3 lec, 2 lab.

### 344 Unit Operations III (4)

Prereq: 343. (spring) Stagewise processes including distillation and extractions. 3 lec, 2 lab.

### 400 Applied Chemical Engineering Calculations (3)

Prereq: 300. Vector analysis, mass and heat fluxes as vector quantities, solution of partial differential equations, matrix theory in stagewise processes, solutions by finite differences.

### 413 Chemical Engineering Lab I—Synthesis and Analysis I (2)

Prereq: 342. (winter) Lab emphasizing use of digital computers for analyzing chemical engineering processes. 1 lec, 2 lab.

### 414 Chemical Engineering Lab II—Synthesis and Analysis II (2)

Prereq: 413. (spring) Lab emphasizing use of analog computers for synthesizing and analyzing chemical engineering processes. 1 lec, 2 lab.

### 415 Chemical Engineering Lab III (3)

Prereq: 343-344, sr rank. (fall) Lab practice to illustrate principles of selected unit operations, thermodynamics and applied kinetics; and to aid student in gaining confidence in handling of pilot plant equipment. Development of ability to devise and conduct chemical engineering experiments with minimum supervision and to report results satisfactorily stressed.

### 416 Chemical Engineering Lab IV (3)

Prereq: 415. (spring) Continuation of 415. See 415 for description.

### 417 Chemical Engineering Lab V (2)

Prereq: 415, 442. (winter) Lab course with emphasis on process control and simulation. 4 lab.

### 418 Chemical Engineering Lab VI — Materials (1)

Prereq: 331. (fall, spring, summer) Demonstrations and experiments supporting relationships

which exist between structure and properties of ceramic, metallic and polymeric materials. 3 lab.

### 419 Chemical Engineering Lab VII—Advanced Materials (1-2)

Prereq: with advanced materials courses or perm. Individual and small group investigation of advanced problems involving chemical, mechanical, physical or design parameters of materials, materials structure or fabrication. Investigations may involve ceramics, metal, polymers or composites. 2 lab for each hr of credit.

### 421 Unit Processes (3)

Prereq: 344, with 344, or perm. (winter) Typical inorganic and organic processes, with emphasis on application of thermodynamic and kinetic theory and on raw material and energy sources, to design and lay-out of these processes. 3 lec.

### 430 Metallic Corrosion (3)

Prereq: 331. Basic principles of corrosion including electrochemical foundation, influence of environment, stress, strain and structure. Selected lab experiments. 3 lec.

### 433 Physical Metallurgy (3)

Prereq: 331. Mechanisms, kinetics and crystallography of reactions in metallic solids. Selected lab experiments for illustration of principles. 3 lec.

### 442 Process Control and Simulation (4)

Prereq: 343-344. (fall) Simulation and control of chemical processes. Feedback control using root loci and Bode diagrams is covered. 3 lec, 2 lab.

### 443 Chemical Engineering Design (4)

Prereq: 343 and 344, or perm. (fall) Project work involving chemical process design, including analysis and extension of fundamental data by calculation, and an economic evaluation. Involves a trip, which usually lasts 3 days, to various chemical plants. Student responsible for his expenses on this trip. 3 lec.

### 444 Chemical Engineering Design (3)

Prereq: 443. (winter) Continuation of 443. See 443 for description.

### 445 The Application of Engineering Design to the Environment (3)

Prereq: 443 or perm. Use of chemical engineering fundamentals to approach a socially significant problem. Students expected to research problem and come up with definite specific solutions which they will then evaluate. 3 lec.

### 452 Introduction to Transport Phenomena (3)

Prereq: 343. Heat mass and momentum transfer from a theoretical basis. Presentation of boundary-layer theory and its comparison with other theoretical and semi-theoretical approaches. 3 lec.

**460 Atmospheric Pollution Control (3)**

Prereq: 303 or ME 321 or perm. Sources of air pollution from major industries, internal combustion engines and other sources. Techniques available for measuring particulate and gaseous pollutants in the atmosphere and at their sources. Techniques available for control and future possibilities for control of air pollution. Bases for air pollution legislation. 3 lec.

**471 Physical Chemistry of Macromolecules (3)**

Prereq: Chem 454. Effects of structure and molecular weight on physical and chemical properties of macromolecules. Topics include molecular weight distribution, solubility, polymer conformation, different types of polymers, synthesis and reactions. Both synthetic and natural polymers considered.

**474 Introduction to Polymer Engineering (3)**

Prereq: 343 or CE 340 or perm. For students with little or no experience in production and fabrication of polymeric materials. Emphasis on subjects of melt rheology, extrusion and injection molding of polymeric materials.

**477 Introduction to Polymer Synthesis (3)**

Prereq: Chem 305. To develop a thorough understanding of mechanisms, kinetics and systems used for synthesis of polymeric materials. Effect of synthesis variations upon properties and reactor design also discussed.

**480 Colloquium (1)**

Prereq: sr rank. (winter) Lectures, mainly by speakers outside the engineering field, on cultural and professional subjects, with discussion moderated by the speakers. 1 lec.

**490 Special Investigations (1-3, max 9)**

Prereq: perm. Individual or small-group work, under staff guidance, in research or advanced study in a particular field of chemical engineering.

**491 Chemical Engineering Honors (1-18, max 20)**

Prereq: jr in chemical engineering, 3.5 accum or above, satisfactory departmental evaluation of potential. Independent departmental honors research resulting in a thesis. Credit-noncredit.

**ENGINEERING, CIVIL****210 Plane Surveying (4)**

Prereq: trigonometry. (fall, spring) Basic theory and field practice in measurement of distance, elevation and angle; introduction to photogrammetry. 3 lec, 3 lab.

**220 Statics (4)**

Prereq: Math 263B. Laws of equilibrium of forces, friction, centroids and moment of inertia. Not open to srs. 4 lec.

**222 Strength of Materials (4)**

Prereq: 220, Math 263C or with 263C. Elementary stresses and strains, torsion; flexure, including elastic curve equations; columns; combined stresses; stresses due to impact. 4 lec.

**223 Strength of Materials Laboratory (1)**

Prereq: 222 or with 222. Testing of various materials under axial compression, tension, flexure, torsion, impact. Use of electrical, mechanical, and photoelastic strain measuring equipment. 2 lab.

**311 Route Engineering (4)**

Prereq: 210, nonmajors by perm. (winter) Horizontal and vertical curves; geometric design of highways; earthwork distribution; introduction to engineering economy. 4 lec.

**321 Dynamics (4)**

Prereq: 220. Motion of particles and rigid bodies, work and energy, impulse and momentum. 4 lec.

**330 Structural Theory I (5)**

Prereq: 222, computer science. (fall) Classical and modern methods of analysis including matrix methods with computer applications. 5 lec.

**331 Structural Theory II (3)**

Prereq: 330. (winter) Continuation of 330. 3 lec.

**340 Fluid Mechanics (5)**

Prereq: 321. Statics and dynamics of viscous and nonviscous fluids, dimensional analysis and similitude, 1-dimensional gas dynamics, pipe flow, principles of lift and drag, introduction to boundary layers. 5 lec.

**341 Fluid Mechanics Laboratory (1)**

Prereq: 340 or with 340. Laboratory techniques, calibration principles, fluid and flow measurements. 2 lab.

**342 Applied Hydraulics (3)**

Prereq: 340. (spring) Flow and pressure distribution in multi-loop networks, dynamics of flow in pumps and turbines, uniform and non-uniform flow in open channels, culvert hydraulics, hydraulic transients. 2 lec, 2 lab.

**343 Hydrology (4)**

Prereq: 340. (spring) Precipitation and runoff data; groundwater hydraulics; infiltration; peak runoff calculations. Application to water resource problems. 4 lec.

**361 Transportation Engineering (4)**

Prereq: 311; nonmajors by perm. (spring) Comparative analysis of various modes of transportation, with emphasis on inherent advantages and disadvantages of each; planning process applied to transportation facilities. 4 lec.

**370 Soil Engineering (4)**

Prereq: 222, Geol 283. (winter) Soil compositions, physical and chemical properties and classifications; water movement and seepage problems;

consolidation and shear strength; applications to earth structures, retaining walls, slope stability, bearing capacity and settlement. May be taken as 570 for graduate credit except by civil engineers. 3 lec, 2 lab.

**410 Surveying II (3)**

Prereq: 210. (spring) Triangulation; astronomical observations; land surveying; instrument adjustments; special topics. 2 lec, 3 lab.

**415 Photogrammetry (3)**

Prereq: 210 or perm. (winter) Equipment and methods used in aerial photography and land measurement. 2 lec, 2 lab.

**423 Continuum Mechanics (4)**

Prereq: 321, Math 340. (spring) Matrix methods in mechanics and structures; laws of dynamics; mechanical properties of solids and fluids, basic theories of continuum mechanics. 4 lec.

**424 Strength of Materials II (3)**

Prereq: 222. (fall) Theories of failure, unsymmetrical bending, shear center and other topics not covered in usual undergraduate course. 3 lec.

**425 Advanced Strength of Materials (4)**

Prereq: 222, Math 340. (fall) Advanced treatment of theories of failure, stresses and strains at a point, cross shear, unsymmetrical bending, curved beams, torsion, thick-walled cylinders, energy methods. Graduate-level course open to selected undergraduates. 4 lec.

**426 Theory of Stability (3)**

Prereq: 222. (winter) Buckling of columns, beam columns, plates and rings. 3 lec.

**427 Experimental Stress Analysis (3)**

Prereq: 424 or 524 or 525. (spring) Experimental methods of stress determination including photoelasticity, stress coat and electric strain gauge techniques; stress analogies; strain rosettes for combined stress determinations. Graduate-level course open to selected undergraduates. 2 lec, 2 lab.

**428 Theory of Elasticity and Applications (3)**

Prereq: 222, Math 340 and perm. (fall) Equations of equilibrium and compatibility; stresses and strains in beams, curved members, thick cylinders, and structural members torsion. Graduate-level course open to selected undergraduates. 3 lec.

**429 Mathematical Theory of Elasticity (3)**

Prereq: 428. (winter) Fundamental equations and problems of elasticity theory; methods of stress functions and displacement potentials; finite element applications. Graduate-level course open to selected undergraduates. 3 lec.

**432 Structural Design in Concrete (4)**

Prereq: 222. (winter) Analysis and design of reinforced concrete members and structures, prestressed concrete members. 4 lec.

**433 Structural Design in Steel (4)**

Prereq: 222. (fall) Design of steel structures and structural components by elastic and plastic methods. 4 lec.

**434 Structural Design II (3)**

Prereq: 432, 433, 331 or with 331. (spring) Design of complete structures or major components of structures. 3 lec.

**435 Advanced Structural Theory I (4)**

Prereq: 331. (fall) Analysis of indeterminate structures by both classical and modern methods. Analysis of multistory bents, arches, closed rings and frames with variable cross-sections. Plastic theory and design. 4 lec.

**436 Advanced Structural Theory II (4)**

Prereq: 435. (winter) Continuation of 435. Relaxation methods, matrix methods, shell structures. 4 lec.

**437 Advanced Structural Design (4)**

Prereq: 436. (spring) Modern design concepts and principles as applied to various construction materials. 4 lec.

**443 Open Channel Hydraulics (3)**

Prereq: 340. (spring) Principles of uniform and varied flow. Channel design for uniform flow, gradually varied flow profiles, channel transition, hydraulic jumps, flow in prismatic and nonprismatic channels. Graduate level course open to selected undergraduates. 3 lec.

**446 Potential Flow Theory (3)**

Prereq: 340 and/or perm. (fall) Inviscid flow theory. General equations of fluid dynamics, study of potential flow. Graduate-level course open to selected undergraduates. 3 lec.

**447 Viscous Flow Theory (3)**

Prereq: 340 and/or perm. (winter) Mechanics of fluid resistance, laminar and turbulent flow. Applications to external boundary layer flow and to flow in ducts. Graduate-level course open to selected undergraduates. 3 lec.

**450 Water Treatment (3)**

Prereq: 342-343, Chem 122. (fall) Sources and collection of public water supplies; principles of treatment processes. 3 lec.

**451 Wastewater Treatment (3)**

Prereq: 342, 343. (winter) Quantities and collection of municipal wastewater; principles of treatment processes. 3 lec.

**452 Water and Wastewater Analysis (3)**

Prereq: Chem 123. (fall) Laboratory methods and

interpretation of results for chemical and bacteriological examination of water and wastewater. 2 lec, 3 lab.

#### 455 Water Treatment II (4)

Prereq: 450, 452, perm. (winter) Theory; design of treatment units; laboratory experiments demonstrating basic principles. 3 lec, 3 lab.

#### 456 Wastewater Treatment II (4)

Prereq: 451, 452, perm. (spring) Theory; design of treatment units; laboratory experiments demonstrating basic principles. 3 lec, 3 lab.

#### 457 Water Resources Engineering (3)

Prereq: 343 and perm. (winter) Elective sr civil engineering course designed to provide an integrated treatment of water resources engineering, including hydrological measurements, runoff, groundwater, water law, reservoir design, frequency analysis, economics, planning, flood control and water quality control. Systems approach to multi-purpose water resource projects will be emphasized. 3 lec.

#### 458 Water Quality Engineering (3)

Prereq: perm. (spring) Graduate level course open to qualified srs. Natural and man-made characteristics of water quality, changes in quality resulting from use, criteria for control of stream pollution, methods of improving water quality, also legal, economic, and institutional aspects. 3 lec.

#### 462 Traffic Engineering (3)

Prereq: 361, nonmajors by perm. (winter) Vehicle and driver characteristics, uses of traffic control devices, intersection design and capacity, parking characteristics. 3 lec.

#### 463 Traffic Parameters (4)

Prereq: perm. (fall) Vehicle-highway relationships, including vehicle performance and highway geometry. Consideration of highway capacities and their influence on design. 4 lec.

#### 464 Transportation Data Methods (4)

Prereq: perm. (winter) Introduction to traffic survey methods, data collection and evaluation. Topics include origin-destination, speed, parking, accident and future development studies. 4 lec.

#### 465 Traffic Regulations and Controls (4)

Prereq: perm, 463, (spring) Typical traffic ordinances and regulations and their utilization to control traffic through use of signs, markings and control devices. Traffic signals, including their use as single units or as a progressive series. 4 lec.

#### 467 Traffic Studies I (1-4)

Prereq: 464, (spring) Practical problems relating to traffic surveys and data analysis.

#### 468 Traffic Studies II (1-4)

Prereq: 465, (winter) Practical problems relating to vehicular characteristics and traffic movements.

#### 471 Foundation Engineering (3)

Prereq: 370, 432, (fall) Design and construction problems in soil engineering: subsurface investigation, retaining structures, slope stability, earth dams, foundations and field measurement. 3 lec.

#### 472 Soil Mechanics I (3)

Prereq: 370, (fall) Water movement through soil, construction and interpretation of flow nets. Elastic equilibrium and stress distributions. Consolidation theories and settlement. 3 lec.

#### 473 Soil Mechanics II (3)

Prereq: 472, (winter) Shearing strength. Plastic equilibrium, bearing capacity, lateral soil pressures and slope stability. 3 lec.

#### 474 Soil Mechanics Laboratory (1)

Prereq: 472 and 473, (spring) Techniques of soil mechanics measurements. Shear test, pore pressure, volume change. Consolidation, permeability and capillarity; model tests. 3 lab.

#### 475 Advanced Foundation Engineering (3)

Prereq: 472 and 473, (spring) Sub-structure analysis and design to meet various soil conditions. Settlement and bearing capacity analyses of various types of foundations and retaining structures. Case studies. 3 lec.

#### 476 Soil Stabilization (4)

Prereq: 370, (fall) Engineering, geological and pedological soil classification systems. Mineralogy of clay minerals and clay-water systems; requirements for and factors affecting soil stability. Methods and mechanisms of soil stabilization; design and testing stabilized soils. 3 lec, 2 lab.

#### 481 Pavement Design (3)

Prereq: 370, (spring) Types and uses of various paving materials and mixtures; theory and practice in design, construction and maintenance of various types of highway and airport pavements. 2 lec, 2 lab.

#### 482 Paving Materials and Mixtures (3)

Prereq: perm. (winter) Types, constituents, chemical behavior, tests, specifications and uses of bituminous materials, Portland cements and aggregates in pavements. Design and manufacture of paving mixtures and construction of pavements. 2 lec, 3 lab.

#### 483 Principles of Pavement Design (3)

Prereq: 370, (spring) Fundamentals of wheel loads and stresses in pavements. Properties in pavement components and tests. Design methods and evaluations. 3 lec.

#### 490 Special Investigations (1-5)

Prereq: perm. (fall, winter, spring, summer) Special investigation or problem not covered by formal courses. Permits well-qualified student to pursue individual study under direction of faculty member.

## ENGINEERING, ELECTRICAL

### 111 Consumer Electronics (2)

(fall, spring) Provides useful purchasing and other decision-making information such as explanations of specifications, and descriptions of operation of consumer grade high-fidelity equipment. Topics included are audio amplifiers, preamplifiers, loudspeaker systems, phonographs, phono cartridges, AM and FM tuners, receivers, tape decks, tape selection, headphones, noise reduction systems, 4-channel (quad) sound equipment. Also included are demonstrations and equipment comparisons.

### 150 Electronic Arts in Music (2)

(fall, spring) Survey of range of electronic techniques used in reproduction and synthesis of musical sounds. Basic acoustics, music amplifiers, recording, analog and digital music synthesizers, computer music, keyboard electronic instruments and trends in musical instrument engineering covered with selected demonstrations of hardware.

### 210 Circuit Analysis I (4)

Prereq: Math 263A. (fall, winter) Basic concepts and definitions, units, DC circuit analysis, Kirchhoff's laws, source transformations, mesh and nodal analysis, network theorems, magnetic circuits. 3 lec plus 2 hrs computation.

### 211 Circuit Analysis II (4)

Prereq: 210 and Math 263B. (winter, spring) Continuation of 210. Inductance and capacitance, DC transients, periodic functions, average and RMS, complex numbers, phasors, sinusoidal steady state circuit analysis. 3 lec plus computation.

### 212 Circuit Analysis III (4)

Prereq: 211. (fall, spring, summer) Continuation of 211. AC network theorems, coupled circuits, frequency response, polyphase circuit analysis. 3 lec plus computation.

### 221 Instrumentation and Computation Laboratory II (3)

Prereq: 210 and/or with 211. (winter, spring) Theory and applications of laboratory instruments. Laboratory experimentation involving electrical and magnetic phenomenon.

### 222 Instrumentation and Computation Laboratory III (3)

Prereq: 221 and/or with Math 340. (fall, spring, summer) Fundamentals of analog computation and analog computer experiments. Theory and applications of laboratory instruments. Laboratory experimentation.

### 232 Analytical Foundations of Electrical Engineering (5)

Prereq: Math 340 or with Math 340 and EE 211. (spring, summer, fall) Vector analysis with applications to electromagnetic fields. Matrix theory with applications to state variable formulation of linear and nonlinear systems. Complex variable theory with applications to systems, in preparation for Laplace transforms, etc. Special analytical techniques for the solution of complex electrical engineering problems with emphasis on computer-oriented techniques.

### 250A Electrical Engineering I (4)

Prereq: perm. (summer) Special course in direct current and alternating current analysis using calculus, primarily for transfer students from 2-yr technical institutions.

### 250B Electrical Engineering II (4)

Prereq: perm. (summer) Continuation of 250A, including 3-phase circuits (balanced and unbalanced), transients, frequency response, etc.

### 301 Intermediate Laboratory I (1)

Prereq: 221 and jr standing. (fall, winter, spring, summer) Intermediate laboratory provides student with opportunity to formulate his or her own experiments and perform them on an open shop basis. Experiments must receive faculty approval as to content and area of investigation and results presented in written report. This lab sequence must be taken concurrently with required 300-level lecture courses.

### 302 Intermediate Laboratory II (1)

Prereq: 301. (fall, winter, spring, summer) See 301 for description.

### 303 Intermediate Laboratory III (1)

Prereq: 302. (fall, winter, spring, summer) See 301 for description.

### 304 Basic Electrical Laboratory I (1)

Prereq: 313, or with 313. (fall, winter, spring, summer) Lab supplement to 313. Basic instruments and circuit measurements. 2 lab.

### 305 Basic Electrical Laboratory II (1)

Prereq: 304 and 314, or with 314. (fall, winter, spring, summer) Lab supplement to 314. Operation of electronic devices, transformer and rotating machines. 2 lab.

### 310 Linear Systems and Networks I (4)

Prereq: 212 or 313. (fall, winter) Integro-differential equations as models of systems, direct and inverse Laplace transform with associated theorems, flow graphs, network theorems, Z-transforms.

### 312 Linear Systems and Networks III (4)

Prereq: 310. (spring, fall) Fourier series, transforms and integrals, frequency-time response,

state variable formulation for 1st and 2nd order systems, 2-port parameters, indefinite admittance matrix, system stability.

### 313 Basic Electrical Engineering I (3)

Prereq: Math 263B. DC, steady-state single phase AC, balanced polyphase and magnetic circuits. Not open for credit to electrical engineering majors. 3 lec.

### 314 Basic Electrical Engineering II (3)

Prereq: 313. Electronic devices, models, transformers and steady state performance of rotating machines. Not open for credit to electrical engineering majors. 3 lec.

### 321 Electromagnetics and Materials I (4)

Prereq: 212, 232. (winter, spring) Introductory treatment of static electric and magnetic fields in free space and stationary matter and physical properties of fields, charges and currents. Included are: electromagnetic field vectors and field equations, boundary conditions, Poisson's equation, solutions of Laplace's equation for scalar electric and magnetic potentials, vector potential, polarization and magnetization charges and currents and a unified macroscopic treatment of fields in matter. Electromagnetic energy.

### 322 Electromagnetics and Materials II (4)

Prereq: 321. (spring, summer, fall) Continuation of 321. Discussion of time-varying electromagnetic fields. Application of field theory to solution of problems from various branches of electrical engineering with emphasis upon physical interpretation. Included are: relation of field theory to circuit theory, Poynting's theorem, stored energy and power flow, complex fields and power, TEM waves, uniform plane wave, wave reflection and refraction.

### 330 Energy Conversion I (4)

Prereq: 212. (fall, winter) Principles of energy conversion utilizing both electrostatic and electromagnetic forces. Properties of magnetic materials including study of eddy-current and hysteresis effects. Single phase and polyphase transformers theory and applications.

### 331 Energy Conversion II (4)

Prereq: 330. (winter, spring) Direct current generators and motors, revolving field theory; polyphase induction motors including motor theory and equivalent circuits. Synchronous alternator and motor theory including synchronous condenser applications for power-factor correction.

### 332 Energy Conversion III (2)

Prereq: 331. (spring, summer) Single phase electromagnetic energy converters. Includes double revolving field theory and its application to shaded pole, split phase and repulsion-induction induction motors, universal motor and single phase synchronous motor.

### 340 Electronics I (4)

Prereq: 212. (fall, winter) Introduction to solid state devices. Energy bands, transport phenomena, diodes, junction transistors. Graphical and analytical methods of circuit analysis.

### 341 Electronics II (4)

Prereq: 340. (winter, spring) Continuation of 340. Digital and integrated circuits; small-signal representations of transistors; biasing and stabilization; field-effect transistors; power amplifiers and power control circuits.

### 342 Electronics III (2)

Prereq: 341. (spring) Optional continuation of 341. High-frequency models for transistors; wide-band amplifiers. Semiconductor device physics.

### 401 Advanced Laboratory I (1-3)

Prereq: 303 or perm. (fall, winter, spring, summer) Advanced lab format follows that of intermediate lab. Student-proposed projects are design- or research-oriented and directed by a faculty member specializing in area of investigation. Portion of this lab required in conjunction with certain electrical engineering 400-level lecture courses. Student taking 400-level electrical engineering courses must register for minimum of 1 credit hr of advanced lab per qtr—5 credit hrs of advanced lab required for graduation.

### 402 Advanced Laboratory II (1-3)

Prereq: 303. (fall, winter, spring, summer) See 401 for description.

### 403 Advanced Laboratory III (1-3)

Prereq: 303. (fall, winter, spring, summer) See 401 for description.

### 405 Semiconductor Principles (3)

Prereq: 322 and 341. (winter) Simplified 1-dimensional band theory of solids. Valence and conduction band occupancy from Fermi-Dirac statistics. Hole conduction and doping. Derivation of PN junction volt-amp-temperature characteristic. DC and AC characteristics of junction transistors derived from fundamentals.

### 406 Advanced Electronic Circuits I (3)

Prereq: 342. (fall) Multistage amplifiers; feedback; stability and oscillation; operational amplifiers, linear analog systems.

### 407 Advanced Electronic Circuits II (3)

Prereq: 342. (winter) Digital electronics and instruments: arithmetic functions; coding and decoding; memories; counters; registers; A/D and D/A conversion. Nonlinear analog systems: comparators, function generation, logarithmic amplifiers.

### 408 Advanced Electronic Circuits III (3)

Prereq: 406. (spring) Solid-state communications circuitry. Receiver principles and design; stability and gain considerations. Transmitter and

modulator principles and design; power gain, high frequency matching networks.

#### **409 Solid-State Instrument Design (3)**

Prereq: 341. Electronic instruments and instrument subassemblies including amplifiers, wave form generators, oscilloscopes, TVMs, etc., using various solid-state devices such as diodes, transistors, unijunctions, FETs and integrated circuits.

#### **411 Network Synthesis I (3)**

Prereq: 312. (fall) Theory of network design. Positive real functions, synthesis of general passive 1-port, approximation, parts of network functions.

#### **412 Network Synthesis II (3)**

Prereq: 411. (winter) Continuation of 411. Properties of 2-port functions, realization of 2-ports with 2 kinds of elements, insertion—loss, synthesis, approximation, filter design.

#### **413 Network Synthesis III (3)**

Prereq: 411 and 412. (spring) Theory and design of active networks. Topics such as active non-reciprocal network elements, synthesis of active RC 1-ports, synthesis of 2-ports containing R, C and negative resistors, synthesis of active RC networks with controlled sources and the design of negative-resistance amplifiers.

#### **425 Automatic Control I (3)**

Prereq: 312 or with 312. (fall) Formulation of linear models for lumped-parameter physical systems, fundamental principles of closed-loop control, signal flow graphs, Routh-Hurwitz criteria; Root locus method, Bode plots; introduction to control system using Root locus and Bode plots.

#### **426 Automatic Control II (3)**

Prereq: 425. (winter) Nyquist stability criterion, Nichols charts, cascade and feedback compensation, frequency domain performance specifications, minor loop design.

#### **427 Automatic Control III (3)**

Prereq: 426. (spring) Sampled-data systems, Z-transforms, sampled data system design using digital compensators; carrier control systems; state-space concepts, designing of control systems using state variable feedback.

#### **440 Microwave Theory and Devices (3)**

Prereq: 322 or perm. (fall) Generation and transmission of electromagnetic energy above 30 MHz. Discussion of klystrons, magnetrons, solid-state sources, waveguides and resonators including lab demonstrations and experiments.

#### **441 Antennas (3)**

Prereq: 322 or perm. (winter) Theory of radiating structures, analysis and synthesis of arrays, impedance, radiation patterns, gains and discussion of selected practical examples.

#### **442 Introduction to Radar and Aircraft Navigation Systems (3)**

Prereq: 322 or perm. (spring) Discussion of radar as applied to aviation requirements of surveillance, approach and landing, weather avoidance; presentation of principles of VOR, DME, RNAV, ILS, ADF, Loran, Omega.

#### **443 Electromagnetics I (3)**

Prereq: 322, Math 340. (fall) Mathematical review of vector operations in Cartesian and curvilinear coordinates. Solution of wave equation in Cartesian coordinates and application to wave reflection from interfaces between general media. Decomposition of wave solutions into TE, TM and TEM waves, with application to waveguides and transmission lines; solution of wave equation in cylindrical coordinates, with application to circular waveguide radiation from line sources and scattering from cylindrical objects.

#### **450 Control of Electrical Machinery (3)**

Prereq: 331. Magnetic and electronic motor controllers including study of control theory and application to given problems.

#### **451 Symmetrical Components (3)**

Prereq: 331. (winter) Circuits analysis by symmetrical components, representation of unbalanced polyphase currents and voltages by component symmetrical sets, solutions of faults on power systems, unbalanced operation of power equipment, single phase induction motor analysis.

#### **452 Power Transmission (3)**

Prereq: 331. (fall) Economic and electrical principles of electrical power lines, mechanical principles of transmission line design.

#### **453 Power Distribution (3)**

Prereq: 331. (spring) Fault current calculations and automatic fault isolation on a coordinated distribution system, study of relays, reclosers, sectionalizers and fuse coordination, load and voltage studies of distribution, radial and network systems.

#### **454 Electrical Design (3)**

Prereq: 331. Design relationship of electrical machinery, including design of machine and pre-determining of its performance.

#### **458 Power System Stability Studies (3)**

Prereq: 332. (spring) Problems pertaining to stability of large power systems, both synchronous and asynchronous loadings, maximum use of digital computer techniques and matrix algebra. Each student will present paper on individually assigned problems.

#### **460 Hybrid Computation and Digital Simulation (3)**

Prereq: 465. (spring) Solutions of problems on



analog/digital computers and on analog computers with programmable logic. Digital simulation languages. Solutions of engineering problems by digital simulation.

#### **461 Digital Systems I (3)**

Prereq: 341. (fall) Postulates and fundamental theorems of Boolean algebra; algebraic and map methods for design of combinational logic and simple sequential circuits; logic minimization methods; introduction to system design using shift registers, counters, etc.

#### **462 Digital Systems II (3)**

Prereq: 461. (winter) Basic concepts from theory of finite-state machines; analysis and synthesis of sequential circuits; study of state assignment; synchronous and asynchronous machines; system design using integrated circuit registers, counters.

#### **463 Digital Computer Design (3)**

Prereq: 462. (spring) Functional organization of digital computers for control and data processing, definition of functional characteristics of subsystems, study of current computer component technology. Several types of machines designed in varying degrees of detail.

#### **470 Communication Engineering (3)**

Prereq: 312 and 341. (fall) Unified approach to communications stressing principles common to all transmission systems. Review of Fourier series. Fourier integral and complex frequency techniques with emphasis on communication networks, time response and convolution, measurement of information, amplitude modulation (double and single sideband techniques), frequency modulation, sampling theory, pulse modulation systems, fundamentals of random signal theory and its application to communication systems, noise and its effect on conventional modulation systems; noise figure, noise suppression techniques and other related topics.

#### **471 Statistical Analysis (3)**

Prereq: 312. (winter) Analysis of engineering problems using probabilistic and statistical concepts; probability, discrete and continuous random variables, distribution functions, means, moments, characteristic functions, statistical independence, correlation, estimation and applications to engineering problems.

#### **472 Random Signals in Linear Systems (3)**

Prereq: 471 or perm. (spring) Introduction to random electrical signals and noise. Autocorrelation, crosscorrelation, power spectra, Nth law detectors, matched filters, detection of signals in noise, optimum receivers, Bayes estimators.

#### **488 Analysis of Engineering Problems (3)**

Prereq: perm. Basic philosophy, methodology and viewpoint developed for solution determination. Comparison made for applicability of empirical and theoretical analytical techniques to both

linear and nonlinear situations. Characterization via mathematical models utilized for problem synthesis. Trade-off studies as practical technique for parameter value selection and influence-effect relationships.

#### **490A Space Communications (3)**

Prereq: 312 and 341. (summer) Communications links with examples taken from space applications. Includes considerations of data encoding, modulation technique, antenna gains, space loss, system noise and demodulation techniques.

#### **490H Propagation of Radio Waves (3)**

Prereq: 322. (no regular schedule) Review of fundamentals of electromagnetic waves, ground wave propagation, surface wave, wave propagation in ferrites, properties of ionosphere and sky wave propagation.

#### **490I Introduction to Plasma Dynamics (3)**

Prereq: 321, 322. (no regular schedule) Review of electromagnetic theory, motion of charged particles in given electromagnetic fields. Magnetohydrodynamic theory, propagation and excitation of waves in plasma.

## **ENGINEERING GRAPHICS**

### **101 Engineering Drawing (3)**

Beginning course for students of engineering and technology and related fields; basic techniques, processes and standards, multiview drawing, free-hand drafting, fundamentals of dimensioning, section views and sectional assemblies. 5 lec.

### **102 Engineering Drawing (3)**

Prereq: 101. Basic engineering drawing: pictorial drawing, freehand drawing, developments and intersections, dimensioning, working drawings, elementary design problems. 5 lec.

### **103 The Slide Rule (1)**

Prereq: 3 yrs h.s. math or perm. Slide rule computations involving multiplication and division, simple powers and roots, trigonometric functions, vectors, logarithms, fractional powers and roots of numbers. Modern 10" Log Log duplex decitrig slide rule required. 1 lec.

### **104 Architectural Drawing (5)**

Provides students an opportunity to learn basic techniques used in architectural drawing such as use of instruments, orthographic projection, floor plans, elevations, sections and perspective drawing.

### **121 Descriptive Geometry (3)**

Prereq: 101 or perm. Graphical solutions of problems relating to points, lines, planes and solids. Space visualization pertaining to intersections of

planes and solids. Exercise sheets and practical applications. 5 lec.

### 122 Nomography (2)

Prereq: 3 yrs h.s. math or perm. Fundamentals of using conversion scales, alignment diagrams and proportional charts in graphical solution of equations. 3 lec.

### 201 Computer Graphics (3)

Prereq: soph, FORTRAN. Introduction to development of and present day applications of computer graphics software and hardware systems. Fundamentals of operation of an 1130 computer system linked with interface to a drum plotter and hands-on problem solving experiences requiring computer developed graphical solutions and representations. Problem solving experiences lead to final design project selected by student relative to his particular field of interest with instructor's approval.

### 315 Technical Drawing (3)

Prereq: 101, 102, IndT 216 or perm. Standard and basic drawing representations as applied to industrial products and processes with special emphasis on detail and assembly drawing. 6 lec. Replaces EG 115.

## ENGINEERING, INDUSTRIAL AND SYSTEMS

### 231 Introduction to Industrial and Systems Engineering (2)

(fall, spring) Overview of history and functions of industrial and systems engineering. Topics discussed include job methods, work measurement and work sampling, engineering economy, production control, plant design, project management, linear programming, human factors engineering, computer systems, simulation and occupational safety and health. Team-taught by ISE faculty. 2 lec.

### 300 Principles of Industrial Engineering (3)

Prereq: perm. Survey course covering traditional industrial engineering concepts and practices such as engineering economy, plant location, plant layout, work/methods, work measurement, production control systems (including CPM and PERT), inventory control and quality control. 3 lec.

### 304 Applied Engineering Statistics (3)

Prereq: calculus or perm. Introduction to efficient methods for data collection and analysis. Application of basic statistical tests, techniques and experimental design concepts to engineering and science data problem areas. 3 lec.

### 305 Engineering Statistics I (3)

Prereq: Math 263C or perm. Introduction to applied probability and statistics. Evaluation of experimental data, testing hypotheses, confidence levels and statistical prediction. 3 lec.

### 306 Engineering Statistics II (3)

Prereq: 305 or perm. Continuation of 305. 3 lec.

### 307 Design and Analysis of Experiments (3)

Prereq: 304 or 305 or equiv. or perm. (spring) Design and analysis of engineering experiments approached from linear statistical model point of view. Blocking designs, full and fractional factorial designs, analysis of variance and introduction to response surface methodology. 3 lec.

### 330 Engineering Economy (3)

Economic analysis of engineering projects. Topics include time value of money, cost estimation, equipment comparison, breakeven analysis, economic lot size and replacement analysis. 3 lec.

### 333 Work Design I (5)

Prereq: 305 or equiv. Design of work systems and measurement of work. Applications of statistics to data collected from the real world and from laboratory experiments. Models of work systems, schematic models and charting techniques, work sampling, time study, predetermined time systems, standard data and related industrial tools. 3 lec, 4 lab.

### 336 Project Management (3)

Development and utilization of network techniques to schedule activities, develop financial budgets, allocate resources and control progress and costs of practical projects. Students will be introduced to the use of available computer programs that generate project schedules. 3 lec.

### 410 Decision Theory I (3)

Prereq: 304 or 305 or perm. (winter) Introduction to decision theory, utility theory and applications. Decision making under risk. Inventory, bidding, purchasing, maintenance and investment policies. 3 lec.

### 411 Decision Theory II (3)

Prereq: 304 or 305 or perm. (spring) Bayesian decision theory and applications covering both profit and nonprofit institutions. 3 lec.

### 415 Introduction to Systems Engineering (3)

Prereq: perm. Summary of systems engineering techniques. Beginning course for systems engineers; survey course for others. 3 lec.

### 417 Analytical Foundations of Industrial and Systems Engineering (3)

Prereq: 305, Math 263C or perm. (fall) Special analytical techniques introduced for solution of complex industrial and system engineering problems. Calculus of finite differences, Fourier analysis and use of transform techniques in linear

system analysis discussed. Probability implications of transforms emphasized.

**420 Analysis of Engineering Situations I (3)**

Prereq: Math 263C or perm. (winter) Basic philosophy, methodology and viewpoint for definition and solution of engineering problems. Effects of bounding conditions and role of judgment included. 3 lec.

**421 Analysis of Engineering Situations II (3)**

Prereq: 420. (spring) Continuation of 420. See 420 for description.

**424 Nonlinear Analytical Techniques (3)**

Prereq: 420, 421 or perm. Nonlinear phenomena and classification of singularities. Role of forcing function. Solutions found through methods of residues and variation of parameters. Applications to adaptive controlled systems and optimal controlled systems and other organized structures. 3 lec.

**425 Statistical Design and Analysis of Controlled Systems (4)**

Prereq: 305 or equiv or perm. Applied statistical techniques in selective design and evaluation of controlled systems. Tolerances, errors and variations in parameters of systems viewed in terms of probabilistic distributions and effects on output parameters. Value standards such as reliability and maintainability of equipment and man-machine systems treated.

**427 Digital Computer Systems I (3)**

Prereq: FORTRAN. (fall) Overview of digital computer systems. Programming, storage organization and search. Number representations, conversions and elementary arithmetic operations. Addressing and instruction sequencing. Multiprogramming, multiprocessing and real-time systems.

**428 Digital Computer Systems II (3)**

Prereq: 427 or perm. (winter) Continuation of 427. See 427 for description.

**431 Advanced Engineering Economy (3)**

Prereq: 330, 305. (winter) Continuation of 430. Element of risk explicitly treated by consideration of uncertainties of cost estimates, forecasting and other economic variables. Emphasis placed on construction and use of mathematical models for analysis of engineering alternatives. 3 lec.

**432 Inventory and Manufacturing Control I (3)**

Prereq: 305 or with 305. (fall) Design of inventory and manufacturing control systems. Forecasting, continuous and periodic review inventory systems. Relationship between production schedules and inventory. Production scheduling systems; sequencing models; dispatching rules. 3 lec.

**433 Industrial Computer Applications (5)**

Prereq: 304 or 305, FORTRAN. (fall) Simulation

of industrial problems utilizing digital computers. Stresses user-oriented programs. Applications include use of library routines and simulation languages such as CSMP and GPSS.

**434 Network Analysis (3)**

Prereq: 305 or with 305. (fall, summer) Engineering project planning using such techniques as PERT and critical path method, flow graphs, GERT and other network models. 3 lec.

**435 Quality Control and Reliability (3)**

Prereq: 304 or 305 or perm. (spring) Industrial techniques for process control, acceptance sampling by attributes and variables, inspection and test methods, operating characteristics and design of sampling plans. 3 lec.

**439 Information Systems Engineering (3)**

Prereq: FORTRAN. (spring) Design of industrial information systems including automatic storage, retrieval and transmission of data.

**440 Industrial Plant Design (3)**

Prereq: 333 or perm. (winter) Design process for manufacturing systems. Process planning, equipment selection, jig and fixture design, plant capacity analysis, production scheduling, inventory control, line balancing, plant layout.

**441 Introduction to Operations Research (3)**

Prereq: 305 or perm. (fall) Basic methodology of operations research. Applications and mathematical structure of linear models, linear and dynamic programming, queueing theory and other modeling techniques. 3 lec.

**442 Inventory and Manufacturing Control II (3)**

Prereq: 305 or perm. (winter) Branch and bound scheduling algorithms, horizon planning, control of integrated production, inventory and work-force systems, linear decision rules. 3 lec.

**443 Work Design in a Technological Society (3)**

Prereq: perm. (spring) Exploration of interaction between industrial and systems engineering and labor as an institution. Arbitration, technological change and work organization. 3 lec.

**444 Fundamentals of Mathematical Programming (3)**

Prereq: Math 211 or perm. (winter, summer) Linear programming theory and practice. Topics include assignment problem, transportation problem, simplex method, revised simplex method, dual problem and sensitivity analysis. 3 lec.

**445 Systems Design (3)**

Prereq: perm. Individual or small-group system design project.

**448 Man-Machine Systems (3)**

Prereq: perm. (fall) Role of human operator as subsystem in man-machine systems. Optimum design principles for information displays, equip-

ment controls, workplace environments and life-support systems. 3 lec.

**470 Seminar on Occupational Safety and Health (3)**

Prereq: perm. Occupational safety and health treated historically outlining development of Workman's Compensation and industrial safety up to most recent federal legislation, 1970 Safety and Health Act. Focus given to specific health and safety problems with view toward developing engineering and human factors controls.

**472 Seminar on Air Transportation Systems (2)**

Prereq: 305. Air traffic control processes and problems in terminal and enroute situations, ground facilities systems analysis and design and other current topics with emphasis on industrial and systems engineering approaches to analysis and design. Topic concentration varies from qtr to qtr.

**480 Colloquium (1)**

Prereq: sr rank. (winter) Series of lectures mainly by speakers outside engineering field, on cultural and professional subjects, with discussion moderated by speaker.

**489 Special Investigations (1-6)**

Prereq: perm.

**490 Advanced Problems in Computer Applications (1-6)**

Prereq: perm. Special investigations of advanced industrial and systems engineering problems involving use of digital or analog computers.

## ENGINEERING, MECHANICAL

**301 Dynamics of Machinery (5)**

Prereq: CE 321. (fall) Analytical and graphical solutions of motion problems involving mechanical elements: linkages, gears, cams and mechanical trains, etc. Static and inertia forces, friction, energy storage and unbalance in machines and mechanisms.

**313 Metal Processing (3)**

Prereq: CE 220. (winter) Structure of metals, mechanics of metal forming and metal cutting. Analysis of forces, energy requirements and temperature effects. Lubrication and wear. Inter-relationship between metal processing and mechanical properties.

**321 Introduction to Thermodynamics (4)**

Prereq: Phys 251, Math 263A, B, C. Basic engineering thermodynamics. Definitions, first law, properties and property relations, second law, availability, applications to engineering problems.

**322 Introduction to Thermodynamics Lab (2)**

Prereq: 321 or with 321. (fall, winter) Instruments and measurements, applications to simple thermal machines. Comparison of measurements with theory, elementary computer simulations. Report writing. Two 2-hr sessions per wk.

**327 Steam Power Plants (3)**

Prereq: 321. (arranged) Fuels, principles of combustion, stationary boilers, grates, stokers, furnaces, coal pulverizers, economizers, pre-heaters, super-heaters, stacks, forced and induced draft, boiler-feed pumps, steam engines and turbines and condensers. 3 lec.

**328 Applied Thermodynamics (5)**

Prereq: 321. (spring) Nonreactive and reactive mixtures, compressors, analytical studies of gas and vapor power cycles, and refrigeration. 5 lec.

**381 Internship in Mechanical Engineering (1-3)**

Prereq: jr level and perm. Supervised work-study program, in the mechanical engineering profession, in an established industrial environment. Credit dependent on advanced registration and a mutual agreement between faculty supervisor and the participating company. Course may be repeated; however, the hours applied for graduation are limited to a maximum of six (6). Also listed as 481.

**400 Heating, Ventilation and Air Conditioning (3)**

Prereq: jr rank. (winter) Description and evaluation of heating, air conditioning and total-energy systems employed to provide thermal environments for buildings ranging in scope from residences to integrated commercial, apartment or industrial complexes. Covers human comfort, psychrometrics, load analysis, techniques, equipment and controls.

**401 System Analysis and Control (4)**

Prereq: Math 340. (fall) Physical modeling, formulations responses and stability analysis of mechanical, electrical and fluid systems. Fundamental theory of automatic controls and applications.

**402 Fluid Mechanisms and Controls (3)**

Prereq: perm. (spring) Fluid mechanics associated with fluid control, survey of flow control devices, fluid amplifier principles, digital logic, analysis and synthesis of fluid control systems.

**403 Machine Design I (4)**

Prereq: 313, ChE 331, 418, CE 222, 223. (spring) Applications of mechanics, mechanisms, materials and mechanical processes to design and selection of machine members and units of power transmission.

**404 Machine Design II (4)**

Prereq: 403. (fall) General approach to design

process, inventiveness, design methodology and decision making. Logical methods and approaches to design and analysis of machines and engineering systems. Application of statistics and theory and probability and techniques of optimization to design. Case study projects.

#### **407 Fundamentals of Nuclear Engineering (4)**

Prereq: perm. (winter) Nuclear engineering, including nuclear reactions, radiation detection and measurement, reactor criticality, principles of reactor control, radiation shielding, effects of radiation on materials, uses of radioactive materials.

#### **411 Cryogenic and Vacuum Fundamentals (4)**

Prereq: 321, 412. (arranged) Production of low temperatures and pressures, molecular transport, diffusion through solids, radiation heat transfer, high-performance insulators, low-temperature heat transfer, 2-phase flow, superconductivity.

#### **412 Heat Transfer (5)**

Prereq: 321, CE 340. (spring) Basic concepts of conduction in 1 or more dimensions, steady and transient modes. Radiation, fundamentals of convection in various modes, heat exchanger design. 5 lec.

#### **413 Conduction and Radiation Heat Transfer (4)**

Prereq: perm. (winter) Advanced analytical treatment of conduction and radiation heat transfer. Boundary value problems, orthogonal expansions, moving heat sources, multi-dimensional problems with time-varying boundary conditions, finite difference analysis, conformal transformations, radiation network matrix analysis, diffuse-specular exchange, Monte Carlo techniques, etc.

#### **417 Design of Thermal Systems (4)**

Prereq: 321, 328, 412. (fall) Design of systems in which thermodynamics, transport behavior and optimization techniques are major considerations. Emphasis on total design approach including factors such as cost and reliability. Typical systems include power, propulsion, environmental, cryogenic. Design project and report required.

#### **418 Mechanical Engineering Experimentation (1)**

Prereq: ME sr or grad rank. (fall) Instruction in experimental procedure and experience in designing and executing lab experiments. Students plan and execute their own experiments to acquire answers to assigned problems. Variety of areas covered including control systems, energy conversion, fluid flow, heat transfer, motion measurements, stress-strain. Instructional guidance provided by entire mechanical engineering staff. Provides familiarity with variety of instrumentation and procedures. 3-qtr sequence with experimental subjects phased with prerequisites.

#### **419 Mechanical Engineering Experimentation (1)**

Prereq: ME sr or grad rank. (winter) Continuation of 418. See 418 for description.

#### **420 Mechanical Engineering Experimentation (1)**

Prereq: ME sr or grad rank. (spring) Continuation of 419. See 418 for description.

#### **424 Gas Dynamics I (3)**

Prereq: CE 340 or perm. (winter) 1 and 2 dimensional compressible flow-isentropic flow, flow with heat transfer, friction, shocks, generalized 1-dimensional flow. Applications to propulsion systems. 3 lec.

#### **425 Vehicle Propulsion Systems (4)**

Prereq: 424. Applications of basic engineering disciplines to design and analysis of vehicle propulsion systems. Extensive use of digital computers. Term report required.

#### **430 Applied Thermodynamics Lab (3)**

Prereq: 322, 328. (fall, spring) Sr lab course involving more complex experiments on steam turbines, boilers, combustion, pumps, air compressors, heat transfer and refrigeration. Three 2-hr sessions per wk.

#### **440 Direct Energy Conversion (4)**

Prereq: 321, 412, Phys 316. Coupled flows, irreversible thermodynamics, behavior of ionized gases, general principles of unconventional thermodynamic cycles, thermoelectricity, thermionics, MHD, fuel cells.

#### **480 Colloquium (1)**

Prereq: sr rank. Open presentation of individual engineering analysis or design effort. Requires demonstration of individual analytical or design ability and satisfactory oral presentation techniques.

#### **481 Internship in Mechanical Engineering (1-3)**

Same as 381. See 381 for description.

#### **484 Projects in Thermal Machinery (3)**

Prereq: perm, good academic record. (fall) Research in thermal machines. Individual work on experimental or analytical project involving current problems. Training in use of library, theory and use of instruments, error analysis, planning of experiments, effective report writing. Students should elect 2-term sequence to allow adequate time for completion of meaningful project. Report required.

#### **485 Projects in Thermal Machinery (3)**

Prereq: perm, good academic record. (winter) Continuation of 484. See 484 for description.

#### **486 Projects in Thermal Machinery (3)**

Prereq: perm, good academic record. (spring) Continuation of 484-485. See 484 for description.

**489 Special Investigations (1-6)**

Prereq: perm.

**491 Mechanical Vibrations I (3)**

Prereq: Math 340, CE 321, srs, grad. (fall) Characteristic phenomena of mechanical vibrations encountered in machines and structures (of 1-degree of freedom) and their quantitative investigation. Simple harmonic motion; free, transient and forced vibrations; damping effects; mobility method; CSMP simulation. 2 lec, 2 lab.

**492 Mechanical Vibrations II (4)**

Prereq: 491. (winter) Application of matrix methods; 2-degree of freedom systems; lumped mass systems with several degrees of freedom, and methods for normal mode determination. 4 lec.

**493 Lubrication and Bearing Analysis (3)**

Prereq: perm. (arranged) Concepts of boundary, hydrostatic and hydrodynamic lubrication. McKee, and Boyd and Raimondi methods. Solid lubrication, porous bearings, gas bearings and lubrication in living and artificial human joints.

**494 Advanced Machine Design (3)**

Prereq: perm. (spring) Advanced considerations in design and analysis of machine members, strength under combined stress, thermal stress, fatigue in metals, plastic behavior of metals. 3 lec.

**495 Introduction to Kinetic Theory and Statistical Thermodynamics (4)**

Prereq: perm. (arranged) Kinetic theory, classical and quantum statistical mechanics with applications to engineering devices. 3 lec.

**496 Experimental Methods in Design (3)**

Prereq: 403, perm. (winter) Investigation and evaluation of experimental methods that may be used to obtain design and performance data. Techniques of photoelasticity, strain measurements and vibration measurement.

**497 Methods of Engineering Analysis I (4)**

Prereq: Math 340 or perm. (fall) Methods of analyzing equilibrium and eigenvalue problems in mechanical engineering and engineering mechanics; matrix methods, variational methods, numerical methods.

## ENGLISH

### English Language and Literature Humanities

The major requirement for the AB degree consists of a minimum of 45 hours above 199,

including the following: a) 301 or 302 or 303, b) 307 or 351 or 352, c) 311 or 312, d) 313 or 314, e) 321 or 322 and f) one 400-level course. Completion of these courses automatically completes the Arts and Sciences College requirement of nine hours in the major at the junior-senior level.

An intensive, two-year major program by tutorial instruction is offered by the English Department to sophomores and juniors, beginning each fall term. Information available from the chairman.

Students wishing to major in creative writing will take a minimum of 20 hours of creative writing, 10 hours of which will be *in addition to* the regular 45 hours of requirements for the English major. At the discretion of the director, a student may substitute five hours of 308, Advanced Composition, for five hours of creative writing.

English majors are not permitted to apply courses taken on a pass/fail basis to the major requirements.

Honors work in English: see "Departmental Honors" under Honors College. For general English requirements, see page 63.

## ENGLISH LANGUAGE AND LITERATURE

### 160 English for Foreign Students (5)

Prereq: nonnative speakers of English only, perm of OPIE. Principles and practice of close reading and writing of non-literary prose. Reading practice focuses on developing skill in recognition of features of form and style characteristic of written expository English necessary for satisfactory comprehension. Writing practice is limited to expository prose, with emphasis on principles of organization, methods of development of ideas and expression in acceptable English idiom.

### 171 Topics in Literature (5)

Prereq: fr and soph only. Each course focuses on literature, primarily literature of 20th century considering humanistic problems, issues or themes important today. Each course represents several literary genres (novels, short stories, poems, plays and essays). Aims to improve student's capacity to produce rational, imaginative, persuasive writing and, as a foundation, to read analytically and appreciatively, to discuss articulately and to think lucidly. Offered 1975-76 are:

- A: Literature of Initiation
- B: Afro-American Experiences in Literature
- D: Man and Woman: Images in Literature
- F: Literature of Vision and Fantasy
- H: The Comic Mode in Literature
- I: The Literature of Moral Conflict
- J: Forms of Contemporary Literature

### 173S Special Topics in Literature (5)

Prereq: fr and soph only. Several new and different topics offered each qtr. Individually designed by staff member. Each has the same basic focus and aims as the other 100-level English courses.

**175S Contemporary Issues: Special Topics (5)**

Prereq: fr and soph only. Several new and different issues offered each qtr. Individually designed by staff member. Each has essentially same basic focus and aims as other 100-level English courses.

**180 Fundamental Usage Skills (3)**

Prereq: placement or recommendation. Intensive, voluntary, fundamental program in writing for students with unusually weak training in standard punctuation, grammar, sentence formation, usage and paragraphing skills. Attention to agreement, fragments, pronoun reference, modifiers, tense forms, subordination, etc. Combines small class instruction and writing laboratory work. Prepares for 181. (Formerly 169. Does not count toward Arts & Sciences humanities area req.)

**181 Contemporary Writing Skills (5)**

Prereq: fr and soph only. Rhetorical strategies and stylistic patterns of expository prose. Through example and frequent practice, reviews control of grammar and usage and sharpens attention to audience, selection and organization of material, generalization and evidence, coherence, emphasis, word choice, etc. Students requiring intensive instruction and practice in the most common conventions of grammar and usage should take 180.

**201 Interpretation of Fiction (5)**

Prereq: 5 hrs above 100. Forms and techniques of art of fiction.

**202 Interpretation of Poetry (5)**

Prereq: 5 hrs above 100. Intensive reading of selected poems from all periods of English and American literature and study of forms and techniques.

**203 Interpretation of Drama (5)**

Prereq: 5 hrs above 100. Analysis of dramatic forms.

**204 Introduction to Comparative Literature I: The Classical Tradition (5)**

Prereq: 5 hrs above 199. Selected classical texts, sometimes alone and sometimes in conjunction with modern texts, for purpose of defining classical sensibility in western literature.

**205 Introduction to Comparative Literature II: Romantic Tradition (5)**

Prereq: 5 hrs above 199. Will deal with esthetic and philosophical concepts that have formed Romantic Tradition in western literature. Concentration on works by German, English and French writers.

**206 Introduction to Comparative Literature III: The Modern Tradition (5)**

Prereq: 5 hrs above 199. Selected literary works which provide background for and express modern sensibility in western literature.

**270 Special Studies: Individual or Comparative Authors (2-3)**

Prereq: 5 hrs of English. Intensive focus, short-term course (5 wks) in individual or comparative authors: 270A Medieval, B Renaissance, C Restoration and 18th Cent., D 19th Cent. American, E 19th Cent. British, F 20th Cent. American, G 20th Cent. British, H Continental.

**271 Special Studies: Selected Themes or Topics in Literature (2-3)**

Prereq: 5 hrs of English. Intensive focus, short-term course (5 wks) in selected themes or topics: 271A Poetry, B Fiction, C Drama, D Comparative Genres, E Language, F Stylistics and Rhetoric, G Literature and Film, H Criticism.

**301 Shakespeare, The Histories (5)**

Prereq: 5 hrs above 199. (fall) History plays.

**301A Shakespeare, Selected Plays and Poems (3)**

Prereq: 5 hrs above 199. Selected tragedies, histories and comedies with related poems. Examination of themes, characters and language. Recommended for non-majors. Not duplicated by 301.

**302 Shakespeare, The Comedies (5)**

Prereq: 5 hrs above 199. (winter) Comedies.

**302A Shakespeare: Selected Plays and Poems (3)**

Prereq: 5 hrs above 199. Continuation of 301A. See 301A for description. Not duplicated by 302.

**303 Shakespeare, The Tragedies (5)**

Prereq: 5 hrs above 199. (spring) Principal tragedies.

**303A Shakespeare: Selected Plays and Poems (3)**

Prereq: 5 hrs above 199. Continuation of 301A and 302A. See 301A for description. Not duplicated by 303.

**304 English Bible (5)**

Prereq: 5 hrs above 100. Selected prose and poetry of Old and New Testaments.

**306A Studies in Oriental Literature (5)**

(fall) Introduction to cultural background of Oriental literature.

**306B Studies in Oriental Literature (5)**

Prereq: 306A. (winter) Continuation of 306A. Study of classical Oriental literature.

**306C Studies in Oriental Literature (5)**

Prereq: 306B. (spring) Continuation of 306A-B. Study of modern Oriental literature.

**307 The Structure of American English (5)**

Prereq: 10 hrs above 199. Study of a grammar of English using a linguistic model chosen from contemporary linguistic theories. Course inevitably has a dual focus: on facts of English usage



and on theories linguists have created to organize and explain them. Instructor may wish to present a complete grammar (phonology, morphology, syntax) or a portion of one (e.g., syntax), or compare several grammars. Phonetics may be taught.

**308 Advanced Composition (5)**

Prereq: jr rank. Aim: to increase skills and expertise in writing of discursive prose. Method: regular practice and evaluation, supplemented by attention to professional prose and concepts in rhetoric and style.

**309 Creative Writing (5)**

Prereq: 201 or 202 or 203. Beginning course in creative writing. Will concentrate on processes of invention as they lead to works of fiction and poetry. Student manuscripts criticized; creative literary works of recognized importance analyzed; act of writing a continuing practice.

**310 McGuffey Lectureship in Literature (1-5)**

Prereq: 5 hrs. Special series of lectures offered by current McGuffey Visiting Professor of English. Subject announced each qtr. Number of lectures offered determines credit hrs assigned.

**311 Early English Literature (5)**

Prereq: 10 hrs above 199. Major works and genres of Old and Middle English literature including Chaucer.

**312 Renaissance Literature (5)**

Prereq: 10 hrs above 199. Major works, writers and genres of the English Renaissance, excluding Shakespeare.

**313 Restoration and Neo-Classical Literature (5)**

Prereq: 10 hrs above 199. Major works, writers and genres of Restoration and neo-classical period.

**314 Romantic and Victorian Literature (5)**

Prereq: 10 hrs above 199. Major works, writers and genres of Romantic and Victorian periods.

**315 American Literature (3)**

Prereq: 5 hrs of English or jr rank. Major and minor authors, themes, genres, etc., usually in 19th and 20th century American literature.

**316 English and Continental Literature (3)**

Prereq: 5 hrs of English or jr rank. Major and minor authors, themes, genres, etc. in English and European literature.

**317A American Literature by Black Authors (5)**

Prereq: 5 hrs of English or jr rank. Body of literature being written by black authors in America and attempts to assess the quality and significance of this cultural contribution. (A) Emphasizes "background" materials, fiction and autobiography of 19th and 20th centuries; (B) emphasizes poetry, but includes further reading in

recent fiction and nonfiction prose; (C) emphasizes drama, continues study of new trends in poetry.

**317B American Literature by Black Authors (5)**

Prereq: 5 hrs of English or jr rank. Continuation of 317A. See 317A for description.

**317C American Literature by Black Authors (5)**

Prereq: 5 hrs of English or jr rank. Continuation of 317A, B. See 317A for description.

**321 American Literature to the Civil War (5)**

Prereq: 10 hrs above 199. Major works, writers and genres of American literature before the Civil War.

**322 American Literature Since the Civil War (5)**

Prereq: 10 hrs above 199. Major works, writers and genres of American literature since the Civil War.

**331 20th Century British and American Literature (5)**

Prereq: 10 hrs above 199. Some major works, writers and genres of British and American literature in this century.

**341 Themes in Comparative Literature (5)**

Prereq: 10 hrs in 204, 205, 206. Significant literary theme in western literature, for example: concept of the Baroque, concept of time in western literature, use and reinterpretation of myth in drama, concept of dissonance in poetry. Subject matter will change from qtr to qtr so that the course may be taken more than once for credit.

**345 Readings in Children's Literature (4)**

Prereq: 5 hrs above 199. Readings in classic and contemporary children's literature, together with consideration of historical development of children's literature, philosophical and esthetic bases, criteria of "great" children's literature.

**351 The History of the English Language (5)**

Prereq: 10 hrs above 199. English, like every language, has been and is at present in a state of evolution. Course examines various kinds of changes to which it is subject: in sound patterns and in grammatical forms, in vocabulary and its semantic values. Shows origin and fate of various literary and social norms of various periods of the language, and gives some attention to dialects.

**352 The Development of American English (5)**

Prereq: 10 hrs above 199. History of English language in America; topics covered are comparison of British and American English, phonetic transcription, sources of American English in 17th-century British dialects, development of major regional dialects on east coast and their movement westward, archaic speech of Appalachia and other relic areas, black English, Noah Webster's spelling book and dictionaries, back-



ground of controversy over correctness in America.

**393 Creative Writing Workshop: Short Story (5)**

Prereq: 309 and perm. Instruction and practice in writing of fiction, concentrating on development of narrative techniques, character building in stories, "staging" scenes in a narrative, etc.

**394 Creative Writing Workshop: Non-Fiction (5)**

Prereq: 309 and perm. (winter) Will concentrate on writing non-fiction, and will explore general techniques of prose as they apply to fictionalized biography and the literary essay and as they are used to dramatize effectively works that are generally considered non-fiction.

**395 Creative Writing Workshop: Poetry (5)**

Prereq: 309 and perm. Experience and language of poetry, and emphasis upon practice of writing poetry.

**409 English Renaissance Drama (5)**

Prereq: 301, 302, 303, or 312. Plays of Shakespeare's contemporaries (1590-1642); Marlowe, Jonson, Chapman, Tourneur, Webster, Beaumont and Fletcher. Problems of form, character, theme, spectacle, etc.

**410 Studies in Shakespeare (5)**

Prereq: 301, 302 or 303 and sr rank. Intensive study of some aspect of Shakespeare's works and times.

**411 Studies in Early English Literature (5)**

Prereq: 311 and sr rank. (winter) Intensive study of some aspect of early English literature — author, genre, theme.

**412 Studies in Renaissance Literature (5)**

Prereq: 312 and sr rank. (fall, spring) Intensive study of some aspect of Renaissance literature—author, genre, theme.

**413 Studies in Restoration and Neo-Classical Literature (5)**

Prereq: 313 and sr rank. (winter) Intensive study of some aspect of Restoration and Neo-classical literature—author, genre, theme.

**414 Studies in Romantic and Victorian Literature (5)**

Prereq: 314 and sr rank. (fall, spring) Intensive study of some aspect of Romantic and Victorian literature—author, genre, theme.

**417 Studies in Black Literature (5)**

Prereq: 317A or perm. Intensive study of some aspect of Afro-American literature—author, period, theme, etc.

**421 Studies in American Literature to the Civil War (5)**

Prereq: 321 and sr rank. (winter) Intensive study of some aspect of American literature before the Civil War—author, genre, theme.

**422 Studies in American Literature from the Civil War (5)**

Prereq: 322 and sr rank. (fall, spring) Intensive study of some aspect of American literature since the Civil War—author, genre, theme.

**431 Studies in Contemporary Literature (5)**

Prereq: 331 and sr rank. (fall) Intensive study of some aspect of British and American literature of this century—author, genre, theme.

**441 Studies in Comparative Literature (5)**

Prereq: 341 and sr rank. (winter) Small seminar-type course devoted to a selected topic—a literary movement, a period, a genre, a figure, a problem—in which emphasis is placed on independent reading and criticism.

**450A Teaching Language and Composition (3)**

Prereq: sr rank. Content and methods of presentation for teaching language and composition in high school. Not applicable to Arts and Sciences 200-level requirement.

**450B Teaching Literature (3)**

Prereq: sr rank. Content and methods of presentation for teaching literature in high school. Not applicable to Arts and Sciences 200-level requirement.

**451 Studies in Criticism (5)**

Prereq: 20 hrs above 100 and sr rank or perm. (winter, spring) Some aspect of history and of problems in critical theory and its application.

**453 Form and Theory of Literary Genres (5)**

Prereq: 10 hrs of creative writing. Intensive study of serious fiction or poetry or drama (in alternate offerings as needed) with emphasis on problems writer faces in literary composition.

**457 Readings in English Education (5)**

Prereq: jr rank. Recent developments and writings in English education and their possible application to the teaching of jr and sr high school English.

**461 Colloquium (5)**

Prereq: sr rank. (fall) Specific interdisciplinary problems to be assigned each qtr.

**462 Colloquium (5)**

Prereq: sr rank. (winter)

**463 Colloquium (5)**

Prereq: sr rank. (spring)

**470 Special Studies (5)**

Prereq: sr rank. Normally devoted to intensive study of one author.

**490 Independent Reading (1-15)**

Prereq: perm. Directed individual reading and research.

**496 Advanced Workshop in Creative Writing (5)**  
Prereq: 10 hrs of creative writing and perm. Limited to 6 students, will consist largely of independent work in a particular literary genre. Students will meet together or individually with instructor, according to needs of particular work of that qtr.

**11499 Honors Project (5-15)**

Prereq: perm. Completion of individual writing project for BA with honors in English.

## HUMANITIES

**107 Humanities—Great Books (3)**

Prereq: fr and soph only. (fall) Classics of western civilization leading toward an understanding of cultural heritage. Guidance in critical thinking, reading and writing about those works.

**108 Humanities—Great Books (3)**

Prereq: fr and soph only. (winter) Continuation of 107. See 107 for description.

**109 Humanities—Great Books (3)**

Prereq: fr and soph only. (spring) Continuation of 107, 108. See 107 for description.

**307 Humanities—Great Books (3)**

Prereq: jr and sr only. (fall) Classics of western civilization, leading toward an understanding of cultural heritage. Guidance in critical thinking, reading and writing about those works.

**308 Humanities—Great Books (3)**

Prereq: jr and sr only. (winter) Continuation of 307. See 307 for description.

**309 Humanities—Great Books (3)**

Prereq: jr and sr only. (spring) Continuation of 307, 308. See 307 for description.

## FILM

**334 Aspects of Film (3)**

(fall, winter) Examination of basic motion picture structure and esthetics; survey of narrative, documentary and imagist modes. Weekly screenings.

**337 Studies in the Narrative Film (3)**

Prereq: 334 or perm. (fall) Selected topics in narrative motion pictures with emphasis on contemporary filmmakers. Weekly screenings.

**338 Studies in the Documentary Film (3)**

Prereq: 334 or perm. (winter) Development of naturalistic and polemic traditions; cinema verite and personal documentary. Weekly screenings.

**339 Studies in the Imagist Film (3)**

Prereq: 334 or perm. (spring) Evolution of non-

narrative and imagistic impulses in film. Weekly screenings.

**340 Film Techniques (3)**

Prereq: 334 or perm. (winter, spring) Basic 8mm production techniques; organized as a beginning filmmaking workshop.

**361 Motion Picture Production I (5)**

Prereq: 340. (fall) Professional workshop in 16mm techniques; elementary film structuring; camera and lighting; editing; sound recording; laboratory preparation. Intensive exercise as individual filmmaker. Limited enrollment; admission by perm only.

**362 Motion Picture Production II (5)**

Prereq: 361. (winter) Continuation of 361. Admission by perm only.

**363 Motion Picture Production III (5)**

Prereq: 361. (spring) Continuation of 362. Admission by perm only.

**401 Theory and Criticism of Film I (4)**

Prereq: 334 or perm. (fall) Formal principles, values and stylistic fundamentals of motion pictures. Principles and methods of film criticism. Examination of major works of theory and criticism.

**402 Theory and Criticism of Film II (4)**

Prereq: 401 or perm. (winter) Continuation of 401.

**403 Theory and Criticism of Film III (4)**

Prereq: 402 or perm. (spring) Continuation of 402.

**461 Film Structure I (3)**

Prereq: 334 or perm. (fall) Examination of structure in films, primarily narrative forms. Preparation of scripts and predesigns.

**462 Film Structure II (3)**

Prereq: 461 or perm. (winter) Continuation of 461.

**471 Film Topics Seminar (1-5)**

Prereq: perm. (fall) Investigation of selected motion picture topic announced in advance of registration. Orientation may be either scholarly-critical or production workshop. Topics and credit hours vary qtr to qtr.

**472 Film Topics Seminar (1-5)**

Prereq: perm. (winter) See 471 for description.

**473 Film Topics Seminar (1-5)**

Prereq: perm. (spring) See 471 for description.

**480 Individual Problems (1-5)**

Prereq: perm. Production of a motion picture. May be repeated.

**481 Individual Readings (1-5)**

Prereq: perm. Readings and reports on works

related to motion pictures. Reading list selected by student in consultation with faculty member. May be repeated.

#### **482 Independent Study (1-5)**

Prereq: perm. Advanced individual creative or scholarly work in film. May be repeated.

## **FINANCE**

The finance major prepares professionals who are concerned with the development and utilization of funds for economic and social purposes.

Coursework is available in the fields of financial management, commercial banking, financial institutions, security markets and risk and insurance.

In addition to the BBA degree requirements, a student majoring in finance must complete 24 hours of finance courses at the 300 or 400 level including 327.

#### **102 Personal Money Management (4)**

Prereq: not open to jrs and srs. How to live better financially. Relation of personal goals to money management in terms of expenditures, savings and tax considerations. Financial media that serve the individual such as life insurance, savings, securities and consumer and mortgage credit.

#### **325 Managerial Finance (4)**

Prereq: Acct 102 and jr rank (3rd qtr soph if finance major). Role of financial management in business enterprise; financial analysis; planning needs for short-term and long-term funds; planning for profits; capital budgeting; internal management of working capital and income; raising funds to finance growth of business enterprises.

#### **327 Banking and the Financial System (4)**

Prereq: Econ 101 or 301; and jr rank. Functioning of commercial banking system and other financial institutions. Flow of funds and interest-price movements in money and capital markets. Supply of loanable funds and demand for funds in mortgage loan market, consumer credit market, corporate securities markets and markets for government securities and municipal obligations. Consideration of effects on financial markets of Federal Reserve and Treasury policies.

#### **331 Risk and Insurance (4)**

Prereq: jr rank. Social importance of risk and its place in personal, business and national life, including principles and methods of handling risk. Special interest in technique of insurance.

#### **341 Investments (4)**

Prereq: 325. Principles in determination of investment media for individual and institutional port-

folios. Sources of investment information; analysis of financial statements; investment risks and yields. Securities markets and their behavior.

#### **428 Management of Financial Institutions (4)**

Prereq: 325 or perm. Analysis of objectives, functions, practices and problems of financial institutions as viewed by management of these institutions.

#### **432 Property and Casualty Insurance (4)**

Prereq: 331. Analysis of principal types of property and casualty insurance policies with respect to protection afforded policyholder, his obligations and cost of protection. Policies studied include fire and extended coverage, allied lines, business interruption, inland marine, automobile, general liability, theft and bonds. Subjects of risk, insurance law and multiple-peril policies also covered.

#### **436 Life Insurance (4)**

Prereq: 331. Fundamental economics of life insurance. Principles and practices of life insurance including types of contracts, group and industrial insurance and annuities.

#### **442 Security Analysis (4)**

Prereq: 341. Problems of selecting securities for various investment purposes. Industry structure, volume-price-cost relationships, management, financial position, terms of securities contracts and market price behavior studied to determine attractiveness of securities. Portfolio construction considered.

#### **445 Portfolio Management (4)**

Prereq: 341. Decision-making processes in management of individual and institutional securities portfolios. Theoretical foundations of portfolio selection and construction. Model-building and other criteria applicable to selection, risk-return tradeoffs, revision and evaluation of portfolio performance. Applications of computer technology and other quantitative techniques to different aspects of portfolio management.

#### **453 Real Estate Finance (4)**

Prereq: 325. Financial and investment analysis in purchase and sale of real properties, including single-family dwellings and income properties. Income and risk analysis in real estate investment. Instruments of real estate finance and institutional arrangements in mortgage markets. Government and mortgage markets. Flow of funds and credit conditions in mortgage markets.

#### **455 International Finance (4)**

Prereq: 325 or perm. Problems in international finance. Financing international trade and other transactions; foreign exchange market and exchange market and exchange rates; international payments system. Foreign central banking and current developments in international financial cooperation.

**461 Problems in Business Finance (4)**

Prereq: 325. Case study of financial management in business enterprises. Planning current and long-run financial needs, profit planning, allocation of funds, raising funds, dividend policies, expansion and combination, recapitalization and reorganization.

**463 Capital Allocation (4)**

Prereq: 325. Planning capital outlays. Methods for ranking investment proposals. Theories of financial structure and cost of capital. Approaches to investment decisions under conditions of uncertainty.

**465 Mathematical Analysis of Financial Decisions (4)**

Prereq: 325. Application of quantitative methods to financial management, with special emphasis on systems approach to evaluating proposed financial decisions.

**491 Seminar (3, 4 or 5)**

Prereq: perm. Selected topics of current interest in finance area.

**497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of finance under direction of faculty member.

## FOREIGN LANGUAGES AND LITERATURES

### African and Asian Languages (Department of Linguistics)

Germanic, Romance and Slavic  
Languages  
(Department of Modern  
Languages)

Greek and Latin Languages  
(Department of Classical  
Languages)

### AFRICAN AND ASIAN LANGUAGES

(Department of Linguistics)

A major in African and Asian languages is not offered. Undergraduates seeking a certificate in African or Asian studies may choose three quarters of an appropriate African or Asian language as part of their course requirements.

### African and Asian Literatures in English

Ohio University offers courses at both the undergraduate and graduate levels in the literatures of Africa and Asia. The Department of Linguistics teaches Southeast Asian literature and the department of English, courses in African and Oriental literatures. Students wishing to fulfill requirements for the undergraduate certificate or the MA degree in either African or Southeast Asian studies should consult the departments concerned and the appropriate area studies director. (For description of the Southeast Asian literature courses see this page; for African and Oriental literatures, see pp. 167 and 201.

### Chinese (Asian)

**111 Elementary Chinese (4)**

(fall) Beginning course of a 3-qr 1st-yr sequence.

**112 Elementary Chinese (4)**

Prereq: 111 or equiv. (winter) Continuation of 111.

**113 Elementary Chinese (4)**

Prereq: 112 or equiv. (spring) Continuation of 112.

**211 Intermediate Chinese (4)**

Prereq: 113 or equiv. (fall) First course of a 3-qr intermediate level sequence.

**212 Intermediate Chinese (4)**

Prereq: 211 or equiv. (winter) Continuation of 211.

**213 Intermediate Chinese (4)**

Prereq: 212 or equiv. (spring) Continuation of 212.

**311 Advanced Chinese (4)**

Prereq: 213 or equiv. (fall) Beginning of an advanced level sequence.

**312 Advanced Chinese (4)**

Prereq: 311 or equiv. (winter) Continuation of 311.

**313 Advanced Chinese (4)**

Prereq: 312 or equiv. (spring) Continuation of 312.

### Hausa (African)

**111 Elementary Hausa (4)**

(fall) Beginning course of a 3-qr 1st-yr sequence.

**112 Elementary Hausa (4)**

Prereq: 111 or equiv. (winter) Continuation of 111.

**113 Elementary Hausa (4)**

Prereq: 112 or equiv. (spring) Continuation of 112.

**211 Intermediate Hausa (4)**

Prereq: 113 or equiv. (fall) First course of a 3-qr intermediate level sequence.

**212 Intermediate Hausa (4)**

Prereq: 211 or equiv. (winter) Continuation of 211.

**213 Intermediate Hausa (4)**

Prereq: 212 or equiv. (spring) Continuation of 212.

**311 Advanced Hausa (4)**

Prereq: 213 or equiv. (fall) Beginning of an advanced level sequence.

**312 Advanced Hausa (4)**

Prereq: 311 or equiv. (winter) Continuation of 311.

**313 Advanced Hausa (4)**

Prereq: 312 or equiv. (spring) Continuation of 312.

**Indonesian/Malay (Asian)**

**111 Elementary Indonesian/Malay (4)**

(fall) Beginning course of a 3-qr 1st-yr sequence.

**112 Elementary Indonesian/Malay (4)**

Prereq: 111 or equiv. (winter) Continuation of 111.

**113 Elementary Indonesian/Malay (4)**

Prereq: 112 or equiv. (spring) Continuation of 112.

**211 Intermediate Indonesian/Malay (4)**

Prereq: 113 or equiv. (fall) First course of a 3-qr intermediate level sequence.

**212 Intermediate Indonesian/Malay (4)**

Prereq: 211 or equiv. (winter) Continuation of 211.

**213 Intermediate Indonesian/Malay (4)**

Prereq: 212 or equiv. (spring) Continuation of 212.

**311 Advanced Indonesian/Malay (4)**

Prereq: 213 or equiv. (fall) Beginning of an advanced level sequence.

**312 Advanced Indonesian/Malay (4)**

Prereq: 311 or equiv. (winter) Continuation of 311.

**313 Advanced Indonesian/Malay (4)**

Prereq: 312 or equiv. (spring) Continuation of 312.

**Swahili (African)**

**111 Elementary Swahili (4)**

(fall) Beginning course of a 3-qr 1st-yr sequence.

**112 Elementary Swahili (4)**

Prereq: 111 or equiv. (winter) Continuation of 111.

**113 Elementary Swahili (4)**

Prereq: 112 or equiv. (spring) Continuation of 112.

**211 Intermediate Swahili (4)**

Prereq: 113 or equiv. (fall) First course of a 3-qr intermediate level sequence.

**212 Intermediate Swahili (4)**

Prereq: 211 or equiv. (winter) Continuation of 211.

**213 Intermediate Swahili (4)**

Prereq: 212 or equiv. (spring) Continuation of 212.

**311 Advanced Swahili (4)**

Prereq: 213 or equiv. (fall) Beginning of an advanced level sequence.

**312 Advanced Swahili (4)**

Prereq: 311 or equiv. (winter) Continuation of 311.

**313 Advanced Swahili (4)**

Prereq: 312 or equiv. (spring) Continuation of 312.

**Southeast Asian Literatures  
in Translation**

**340 Traditional Literature of Southeast Asia (3)**

(winter) Survey of traditional literature of Southeast Asia in translation.

**345 Modern Literature of Southeast Asia (3)**

(spring) Survey of modern literature of Southeast Asia in translation.

**GERMANIC, ROMANCE AND  
SLAVIC LANGUAGES**

**(Department of Modern Languages)**

Majors are offered in French, German, Russian and Spanish.

The major requirement for the AB degree is a minimum of 36 quarter hours beyond 241 (Please note: 241 is required as the final intermediate level course for modern language majors). Specific course requirements are 241; 341; 342; 343; 348 or 349; 355; 356, and at least 12 quarter hours at the 400 level which should include courses in both language and literature.

Language majors who participate in study abroad programs are to take at least two 400-level courses in their major on the Athens campus. Spanish majors must take 443 or 444 as part of the 400-level requirement. Modern languages majors are not permitted to take courses in their major subject on the pass/fail basis. Should a student receive a D in a course required for the major, he or she must repeat the course until at least a C is made. Majors are strongly urged to study abroad in their junior year in one of the department's centers. Suggested electives for majors are classical languages, comparative literature, cultural anthropology, English, fine arts, history of the country in the student's major interest and linguistics. Language majors should acquire a reading knowledge of a second foreign language.

Requirements for the BS in education degree with a comprehensive program in a modern foreign language are stated in the section of the College of Education. Students wishing to complete teacher certification requirements as AB degree candidates should refer to the Arts and Sciences section of this catalog for an explanation of the requirements. Prospective teachers are urged to spend at least one quarter in a country of their major language.

Language laboratory facilities include 150 student booths with individual tape recorders. Classrooms have speakers connected to a high-fidelity central console which can provide recorded material for various classes.

The department has chapters of Delta Phi Alpha and Phi Sigma Iota. Academic quarter programs are held in Austria, France and Spain. Summer programs are conducted in Mexico.

## Modern Languages (Professional Courses)

### 410 The Language Laboratory (3)

Prereq: foreign language courses numbered 213 or 241, or courses in linguistics. Use of language lab and associated media as correlated with modern language classroom; instruction in selection, preparation and use of instructional materials and tests, and in successful operation of laboratory and classroom equipment. Required of majors who plan to teach.

### 445 Teaching of Modern Foreign Languages (3)

Prereq: perm. Not to be counted for a major in foreign language, nor as hours above 200 for the AB degree. Study, demonstration and use of methods and materials for effective modern foreign language instruction. Required of majors who plan to teach.

## Foreign Literatures in English

The lectures and readings for these courses are in English and are aimed at the entire University. Intensive review of grammar. Additional

University community. While they are not to be counted for a major in a modern foreign language, these courses may be counted toward fulfilling a part of the requirements for the humanities of the College of Arts and Sciences. No credit toward meeting the foreign language requirement.

### 334 Portuguese and Brazilian Literature in Translation (4)

Literature of Portugal or literature of Brazil in English translation. May be repeated for credit when subject changes.

### 335 Italian Literature in Translation (4)

Famous literary works of best Italian authors, presented in English.

### 336 Spanish Literature in Translation (4)

Topics may deal with either Spanish or Latin American literature. May be repeated for credit when topic changes.

### 337 French Literature in Translation (4)

Literary works by authors of French expression, read and discussed in English.

### 338A German Literature in Translation (4)

Survey of masterpieces of German literature, presented in English.

### 338B German Novel in Translation (4)

Introduction to major German, Swiss and Austrian novelists in English translation.

### 339A Russian Literature in Translation (4)

Survey of Russian literature from beginnings to revolution, presented in English.

### 339B Soviet Literature in Translation (4)

Major developments of Russian literature from 1917 to present day.

## French (Romance)

### 111 Elementary French (4)

Beginning course of a 3-qr, 1st-yr sequence. Basic grammatical concepts and patterns. Emphasis on development of reading, listening, comprehension, speaking and writing skills. Basic text and workbook used. Lab required.

### 112 Elementary French (4)

Prereq: 111. Continuation of 111. Basic text, workbook and readings used. Lab required.

### 113 Elementary French (4)

Prereq: 112. Continuation of 112. Basic text, workbook and readings used. Lab required.

### 211 Intermediate French (4)

Prereq: 113 or 2 or 3 yrs high school French. First course of a 3-qr intermediate level sequence. Intensive review of grammar. Additional

readings with discussion in French. Supplemental cultural material. Lab required.

**212 Intermediate French (4)**

Prereq: 211 or perm. Continuation of 211.

**213 Intermediate French (4)**

Prereq: 212 or 4 yrs high school French. Reading and discussion of selected modern works. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241. See 241.

**241 Literature and Interpretation (4)**

Prereq: 212 or 4 yrs high school French. Contemporary literature, literary analysis and terminology. Majors take 241 instead of 213. Other interested students who made A or B in 212 are encouraged to take 241 to fulfill foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 213.

**341 Advanced Conversation and Composition (4)**

Prereq: 213 or perm. Conversation based on assigned topics. Writing of short compositions which are also discussed in class.

**342 Advanced Conversation and Composition (4)**

Prereq: 341 or perm. Continuation of speaking with more emphasis on writing skills.

**343 Advanced Conversation and Composition (4)**

Prereq: 342 or perm. Emphasis on writing.

**348 French Civilization and Culture (4)**

Prereq: 241 or perm. (fall, winter) Social, political and cultural history of France from Middle Ages to Revolution. Readings, discussions, class reports and term papers.

**349 French Civilization and Culture (4)**

Prereq: 241 or perm. (spring) Continuation of 348, covering period from 1799 to present. Problems of France in modern world.

**355 Introduction to French Literature (4)**

Prereq: 241. Reading and discussion of major French literary works from Middle Ages through 18th century.

**356 Introduction to French Literature (4)**

Prereq: 241. Extensive reading and discussion of major French literary works of 19th and 20th century.

**H391 Honors Reading (1)**

Prereq: perm.

**415 French Literature of the Renaissance (4)**

Prereq: 355 and 356. Major 16th century writers.

**416 French Literature of the Renaissance (4)**

Prereq: 355 and 356. Continuation of 415.

**418 17th Century French Literature (4)**

Prereq: 355 and 356. Works by numerous authors, including at least some of the following: Descartes, Pascal, Mme de La Fayette, La Rochefoucauld, La Bruyere, La Fontaine and Boileau.

**419 17th Century French Literature (4)**

Prereq: 355 and 356. Major plays of Corneille, Racine and Molière.

**423 18th Century (4)**

Prereq: 355 and 356. French literature and thought in Age of Enlightenment.

**424 18th Century (4)**

Prereq: 355 and 356. Continuation of 423.

**425 Romanticism (4)**

Prereq: 355 and 356. Romanticism in drama, poetry and fiction of first half of 19th century.

**426 Realism and Naturalism (4)**

Prereq: 355 and 356. Fiction and drama of second half of 19th century.

**427 French Poetry in the Second Half of the 19th Century (4)**

Prereq: 355 and 356. Poetry of Leconte de Lisle, Heredia, Baudelaire, Verlaine, Rimbaud and Mallarmé.

**429 20th Century French Literature (4)**

Prereq: 355 and 356. Novel, drama and poetry in France before WW II.

**431 20th Century French Literature (4)**

Prereq: 355 and 356. Novel, drama and poetry in France since WW II.

**433 20th Century French Literature (4)**

Prereq: 355 and 356. Study in depth of a genre, theme, work or major figure of 20th century.

**435 Proseminar (1-4, max 12)**

Prereq: perm. Subject will vary. May be repeated when subject changes.

**437 Applied Phonetics (3)**

Prereq: perm. (fall) Advanced study of International Phonetic Alphabet and transcription practice in French.

**439 Modern French Usage (3)**

Prereq: 343 or perm. (winter) Finer points of grammar. Practice in composition and analysis of texts.

**441 Stylistics (3)**

Prereq: 343 or perm. (spring) Composition. *Explication de texte*. Translation of English into French. Study of French prosody.

**H491 Honors Research (1)**

Prereq: perm.

## German (Germanic)

### 111 Elementary German (4)

Introduction to pronunciation and basic grammar. Development of comprehension and speaking skills. Lab required. Beginning course of a 3-qr 1st-yr sequence.

### 112 Elementary German (4)

Prereq: 111. Continuation of 111. Lab required.

### 113 Elementary German (4)

Prereq: 112. Continuation of 112. Continued development of skills of oral and written production and comprehension. Lab required.

### 211 Intermediate German (4)

Prereq: 113 or 2 or 3 yrs h.s. German. Continued development of listening comprehension, reading, writing and speaking skills. Grammar review. Lab required. First course of 3-qr intermediate level sequence.

### 212 Intermediate German (4)

Prereq: 211 or perm. Continuation of 211. Emphasis on discussion of modern texts. Lab required.

### 213 Intermediate German (4)

Prereq: 212 or 4 yrs h.s. German. Modern texts are read and form basis for discussions and written assignments. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241. See 241.

### 241 Literature and Interpretation (4)

Prereq: 212 or 4 yrs of h.s. German. See Fr 241 for description. Not open to students who have completed 213.

### 235 German Drama on Stage (2-4)

Prereq: 211. (winter) Presentation of German drama on stage. Private coaching in pronunciation and inflection of German. Credit varies according to role of student.

### 341 Advanced Conversation and Composition (4)

Prereq: 213 or perm.

### 342 Advanced Conversation and Composition (4)

Prereq: 341 or perm.

### 343 Advanced Conversation and Composition (4)

Prereq: 342 or perm.

### 348 German Culture and Civilization (4)

Prereq: 241 or perm. (fall, winter) Historical, intellectual and artistic aspects of German, Austrian and Swiss culture from earliest times to present.

### 349 German Culture and Civilization (4)

Prereq: 241 or perm. (spring) Continuation of 348.

### 355 Introduction to German Literature (4)

Prereq: 241. From Middle Ages to Classical Period (800-1800).

### 356 Introduction to German Literature (4)

Prereq: 241. From Romanticism to present.

### 11391 Honors Reading (1)

Prereq: perm.

### 425 19th Century German Literature (4)

Prereq: 355 and 356.

### 426 19th Century German Literature (4)

Prereq: 355 and 356.

### 427 19th Century German Literature (4)

Prereq: 355 and 356.

### 429 20th Century German Literature (4)

Prereq: 355 and 356.

### 430 20th Century German Literature (4)

Prereq: 355 and 356.

### 431 20th Century German Literature (4)

Prereq: 355 and 356.

### 433 German Lyric Poetry (4)

Prereq: 355 and 356. Interpretative and critical study of German lyric poetry.

### 435 Proseminar (1-4, max 12)

Prereq: perm. Intensive analysis of major author, literary genre or theme. When subject is changed, student may reenroll.

### 437 Phonology (3)

Prereq: perm. (fall) Problems in description and teaching of German sound system. Training in phonetic and phonemic transcription. Pronunciation drills. Contrastive analysis.

### 439 Grammatical Structure (3)

Prereq: 343 or perm. (winter) Selected problems in analysis and classroom presentation of German morphology and syntax.

### 441 Stylistics (3)

Prereq: 343 or perm. (spring) Advanced writing and stylistic analysis. Practice in a variety of nonfiction prose techniques.

### 447 Readings in German Literature from Periods through the 17th Century (4)

Prereq: 355 and 356. Literature of the Courtly Period, Renaissance and Reformation and Baroque.

### 448 Readings in German Literature from Periods through the 17th Century (4)

Prereq: 355 and 356. Continuation of 447.



**453 The Age of Goethe (4)**

Prereq: 355 and 356. Major works of Lessing, Schiller and Goethe.

**454 The Age of Goethe (4)**

Prereq: 355 and 356. Continuation of 453. See 453 for description.

**455 The Age of Goethe (4)**

Prereq: 355 and 356. Continuation of 453 and 454. See 453 for description.

**H491 Honors Research (1)**

Prereq: perm.

**Italian (Romance)**

**111 Elementary Italian (4)**

(fall) Beginning course of 3-qr 1st-yr sequence.

**112 Elementary Italian (4)**

Prereq: 111. (winter) Continuation of 111.

**113 Elementary Italian (4)**

Prereq: 112. (spring) Continuation of 112.

**211 Intermediate Italian (4)**

Prereq: 113 or 2 or 3 yrs h.s. Italian. (fall) First course of 3-qr intermediate level sequence.

**212 Intermediate Italian (4)**

Prereq: 211 or perm. (winter) Continuation of 211.

**213 Intermediate Italian (4)**

Prereq: 212 or 4 yrs h.s. Italian. (spring) Successful completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241. See 241.

**241 Literature and Interpretation (4)**

Prereq: 212 or 4 yrs h.s. Italian. See Fr 241 for description. Not open to students who have completed 213.

**341 Advanced Conversation and Composition (4)**

Prereq: 213 or perm. (fall)

**342 Advanced Conversation and Composition (4)**

Prereq: 341 or perm.

**343 Advanced Conversation and Composition (4)**

Prereq: 342 or perm.

**348 Italian Civilization and Culture (4)**

Prereq: 213 or perm. (winter) Historical and cultural development of Italy from Middle Ages to Renaissance.

**349 Italian Civilization and Culture (4)**

Prereq: 213 or perm. (spring) Continuation of 348, covering period from Renaissance to present.

**355 Introduction to Italian Literature (4)**

Prereq: 241 or perm.

**356 Introduction to Italian Literature (4)**

Prereq: 241 or perm.

**H391 Honors Reading (1)**

Prereq: perm.

**H491 Honors Research (1)**

Prereq: perm.

**491 Dante: Inferno (4)**

Prereq: 355 and 356.

**492 Dante: Purgatorio (4)**

Prereq: 355 and 356.

**493 Dante: Paradiso (4)**

Prereq: 355 and 356.

**Portuguese (Romance)**

**111 Elementary Portuguese (4)**

(fall) Beginning course of 3-qr 1st-yr sequence.

**112 Elementary Portuguese (4)**

Prereq: 111. (winter) Continuation of 111.

**113 Elementary Portuguese (4)**

Prereq: 112. (spring) Continuation of 112.

**211 Intermediate Portuguese (4)**

Prereq: 113 or 2 or 3 yrs h.s. Portuguese. (fall) First course of 3-qr intermediate level sequence.

**212 Intermediate Portuguese (4)**

Prereq: 211 or perm. (winter) Continuation of 211.

**213 Intermediate Portuguese (4)**

Prereq: 212 or 4 yrs h.s. Portuguese. (spring) Successful completion of 213 fulfills language requirement of the College of Arts and Sciences. Not open to students who have completed 241. See 241.

**241 Literature and Interpretation (4)**

Prereq: 212 or 4 yrs h.s. Portuguese. See Fr 241 for description. Not open to students who have completed 213.

**H391 Honors Reading (1)**

Prereq: perm.

**H491 Honors Research (1)**

Prereq: perm.

**Russian (Slavic)**

**111 Elementary Russian (4)**

(fall) Beginning course of 3-qr 1st-yr sequence.

**112 Elementary Russian (4)**

Prereq: 111. (winter) Continuation of 111.

**113 Elementary Russian (4)**

Prereq: 112. (spring) Continuation of 112.

**114 Intensive Elementary Russian (12)**

Prereq: perm. (spring) Intensive training in Russian language equivalent to Rus 111-112-113, or 1 yr's language training in 1 qtr.

**211 Intermediate Russian (4)**

Prereq: 113 or 2 or 3 yrs h.s. Russian. (fall) Continued language study. Review of grammar. First course of 3-qtr intermediate level sequence.

**212 Intermediate Russian (4)**

Prereq: 211 or perm. (winter) Continuation of 211. Extensive reading, writing and oral practice.

**213 Intermediate Russian (4)**

Prereq: 212 or 4 yrs h.s. Russian. (spring) Accelerated reading, writing and oral practice. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241.

**214 Intensive Intermediate Russian (12)**

Prereq: perm. (summer) Intensive training in Russian language equivalent to Rus 211-212-213, or 1 yr's language training in 1 qtr.

**241 Literature and Interpretation (4)**

Prereq: 212 or 4 yrs h.s. Russian. See Fr 241 for description. Not open to students who have completed 213.

**341 Advanced Conversation and Composition (4)**

Prereq: 213 or perm. (fall)

**342 Advanced Conversation and Composition (4)**

Prereq: 341 or perm. (winter)

**343 Advanced Conversation and Composition (4)**

Prereq: 342 or perm. (spring)

**348 The Cultural History of Russia (4)**

Prereq: 241 or perm. Cultural heritage of Russian people. Origin of Russian literature. Russian chronicles. Three cycles of the *bylina*. Russian ballads. Russian folklore. Readings and lectures in Russian.

**349 The Cultural History of Russia (4)**

Prereq: 241 or perm. Continuation of 348.

**355 Introduction to Russian Literature (4)**

Prereq: 241. Analysis of genres and literary movements.

**356 Introduction to Russian Literature (4)**

Prereq: 241. Continuation of 355.

**11391 Honors Reading (1)**

Prereq: perm.

**397 Introduction to the History of the Russian Language (3)**

Prereq: 213 or 241 or 4 yrs h.s. Russian. (spring) Russian phonology, morphology and syntax from Common Slavic to present. East, West and South Slavic languages.

**411 19th Century Russian Literature (4)**

Prereq: 355 and 356. Pushkin and Lermontov.

**412 19th Century Russian Literature (4)**

Prereq: 355 and 356. Gogol, Turgenev and Dostoevsky.

**413 19th Century Russian Literature (4)**

Prereq: 355 and 356. Tolstoy and Chekhov.

**429 Russian Literature in the Soviet Era (4)**

Prereq: 355 and 356.

**430 Russian Literature in the Soviet Era (4)**

Prereq: 355 and 356. Continuation of 429.

**431 Russian Literature in the Soviet Era (4)**

Prereq: 355 and 356. Continuation of 429 and 430.

**435 Proseminar (1-4, max 12)**

Prereq: perm. Subject will vary. May be repeated when subject changes.

**437 Applied Phonetics (3)**

Prereq: perm. (fall)

**439 Structure of Modern Russian (3)**

Prereq: 343 or perm. (winter) Accurate linguistic description of entire structure of Russian.

**441 Stylistics (3)**

Prereq: 343 or perm. (spring) Advanced writing and stylistic analysis.

**H491 Honors Research (1)**

Prereq: perm.

**Spanish (Romance)**

**111 Elementary Spanish (4)**

Development of comprehension, speaking and reading skills. Basic grammar. Lab required. Beginning course of 3-qtr 1st-yr sequence.

**112 Elementary Spanish (4)**

Prereq: 111. Continuation of 111.

**113 Elementary Spanish (4)**

Prereq: 112. Continuation of 112.

**211 Intermediate Spanish (4)**

Prereq: 113 or 2 or 3 yrs h.s. Spanish. Intensive review of grammar. Additional readings and discussion in Spanish. Supplemental cultural material. Lab required. First course of 3-qtr intermediate level sequence.

**212 Intermediate Spanish (4)**

Prereq: 211 or perm. Continued review. Additional literary readings with discussion in Spanish.

**213 Intermediate Spanish (4)**

Prereq: 212 or 4 yrs h.s. Spanish. Selected readings of 20th century Spanish dramatists, poets, novelists and essayists with discussion in Spanish. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241.

**241 Literature and Interpretation (4)**

Prereq: 212 or 4 yrs h.s. Spanish. See Fr 241 for description. Not open to students who have completed 213.

**341 Advanced Conversation and Composition (4)**

Prereq: 213 or perm. Conversation based on assigned topics. Writings of short compositions which are also discussed in class.

**342 Advanced Conversation and Composition (4)**

Prereq: 341 or perm. Continuation of speaking with more emphasis on writing skills.

**343 Advanced Conversation and Composition (4)**

Prereq: 342 or perm. Emphasis on writing.

**348 Spanish Civilization and Culture (4)**

Prereq: 241 or perm. (fall, winter) Historical, social, political and cultural readings about Spain.

**349 Spanish American Civilization and Culture (4)**

Prereq: 241 or perm. (spring) Lectures in Spanish on Indian civilizations, colonial period, 19th and 20th centuries.

**355 Introduction to Spanish Literature (4)**

Prereq: 241. Reading and discussion of major Spanish literary works from Middle Ages to 18th century.

**356 Introduction to Spanish Literature (4)**

Prereq: 241. Emphasis on 18th and 19th century writers.

**H391 Honors Reading (1)**

Prereq: perm.

**425 19th Century Spanish Literature (1800-1850) (4)**

Prereq: 355 and 356. Romanticism, *costumbrismo* and other trends in drama, essay and poetry.

**427 19th Century Spanish Literature (1850-1900) (4)**

Prereq: 355 and 356. Emphasis on regionalism and naturalism in the novel.

**429 Generation of '98 (4)**

Prereq: 355 and 356. Representative works by Azorín, Baroja, Machado, Unamuno, Valle-Inclán and other authors.

**432 20th Century Spanish Literature (4)**

Prereq: 355 and 356. Emphasis on drama and poetry. Works by Benavente, Casona, García Lorca and other writers of the Generation of 1927.

**433 20th Century Spanish Literature (4)**

Prereq: 355 and 356. Historical background, theories of literature and literary movements in peninsular literature from 1939 to present.

**435 Proseminar (1-4, max 12)**

Prereq: perm. Subject will vary. May be repeated when subject changes.

**437 Applied Phonetics (3)**

Prereq: perm. (fall) Systematic description of segmental and prosodic elements of Spanish system, particularly as contrasted with English.

**439 Modern Spanish Usage (3)**

Prereq: 343 or perm. (winter) Syntactical and grammatical structure of modern Spanish.

**441 Stylistics (3)**

Prereq: 343 or perm. (spring) Analysis of literary styles and study of techniques used to acquire correct style in writing Spanish.

**443 Survey of Spanish American Literature (4)**

Prereq: perm. Main trends of Spanish American literature from colonial period to *Modernismo*.

**444 Survey of Spanish American Literature (4)**

Prereq: perm. Continuation of 443. Main trends of Spanish American literature from *Modernismo* to contemporary period.

**447 Themes from Spanish American Prose (4)**

Prereq: perm.

**448 Contemporary Spanish American Literature (4)**

Prereq: perm.

**453 Drama of the Golden Age (4)**

Prereq: perm. Works by Lope de Vega, Tirso de Molina, Juan Ruiz de Alarcón, Calderon and related dramatists.

**455 Novel of the Golden Age (4)**

Prereq: perm. Picaresque novel, Cervantes' *novelas ejemplares* and other trends in novel of 16th and 17th centuries.

**458 Don Quijote de la Mancha (4)**

Prereq: perm. Intensive study of Part One and Part Two of Spain's greatest novel. Biographical material concerning Miguel de Cervantes, author of the *Quijote*.

**11491 Honors Research (1)**

Prereq: perm.

## GREEK AND LATIN LANGUAGES

(Department of Classical  
Languages)

The Latin major requirement for the AB degree is a minimum of 39 hours above courses 111-112-113, with at least nine hours of 400-level courses consisting of Classical Languages 401, Latin 433 and other 400-level work in Latin. Majors are not permitted to take Latin courses on a pass/fail basis.

A major in Greek is not offered, but Latin majors, especially those who are planning graduate work, are encouraged to take as much Greek as they can.

## Classical Languages in English

The lectures and readings for these courses are in English, and the courses may count as part of the humanities area requirement of the College of Arts and Sciences. With the exception of course 401, which is required for a major in Latin, these courses cannot count toward a major in a foreign language or as part of the foreign language requirement of the College of Arts and Sciences.

### 234 Classical Mythology (3)

Introduction to classical mythology; readings and discussions of myths and their interpretations. No knowledge of Greek or Latin required. No credit toward meeting foreign language requirement.

### 235 Classical Literature in Translation (3)

Reading of Greek and Latin literature in English translation. May be counted as part of requirements for humanities of College of Arts and Sciences. May not be counted toward a major in Latin. No knowledge of Greek or Latin required. No credit toward meeting foreign language requirement.

### 236 Classical Literature in Translation (3)

Continuation of 235.

### 237 Classical Literature in Translation (3)

Continuation of 236.

### 401 The Life of the Romans (3)

Prereq: 12 hrs or 12 hrs history and antiquities. (on demand) *H. Hultgren*. Family, house, transportation, public amusements. Illustrations from archaeological evidence. No knowledge of Latin required. No credit toward meeting foreign language requirement.

## Archaeology

### 201 Introduction to Archaeology—Egypt (5)

(fall, 1976 and 1978) *H. Hultgren*. Aims, methods and techniques; general types of archaeological work and excavation. Open to students who have had 203 and/or 352, as well as to beginners.

### 203 Introduction to Archaeology—Rome (5)

(fall, 1975 or 1977) *H. Hultgren*. Similar to 201, but with emphasis on Roman sites and antiquities. Open to students who have had 201 and/or 352, as well as to beginners.

### 352 Archaeology of Greece (5)

Prereq: 201 or 203; or 18 hrs foreign language; or 12 hrs history or art history. (spring) *H. Hultgren*. Archaeology of Greece and Aegean Islands, with emphasis on Minoan and Mycenaean civilizations.

### 490 Independent Study (1-5, max 12)

Prereq: perm. *H. Hultgren*. Specialized study in archaeology for those students who have legitimate needs and interest not served by 201, 203 or 352.

## Greek

### 111 Beginning Greek (4)

*S. Foulk, H. Hultgren, A. Radko*. Grammar, vocabulary and reading of ancient Attic Greek.

### 112 Beginning Greek (4)

Prereq: 111. Continuation of 111. See 111 for description.

### 113 Beginning Greek (4)

Prereq: 112. Continuation of 111-112. See 111 for description.

### 127 Greek Words in English (3)

*P. Murphy*. General and technical vocabulary derived from Greek. No knowledge of Greek required. No credit toward meeting foreign language requirement.

### 211 Greek Prose and Poetry (3)

Prereq: 113. *A. Radko*. Review of language principles. Readings adapted to needs and interests.

### 212 Greek Prose and Poetry (3)

Prereq: 211. Continuation of 211. See 211 for description.

### 213 Greek Prose and Poetry (3)

Prereq: 212. Continuation of 211-212. See 211 for description. Passing 213 fulfills foreign language requirements of College of Arts and Sciences for AB degree.

### 409 Advanced Greek Readings (2-4, max 18)

Prereq: 21 hrs. (on demand) Selections adapted to needs and interests.

## Latin

### 111 Beginning Latin (4)

Grammar, vocabulary and reading.

### 112 Beginning Latin (4)

Prereq: 111. Continuation of 111. See 111 for description.

### 113 Beginning Latin (4)

Prereq: 112. Continuation of 111-112. See 111 for description.

### 211 Intermediate Latin (4)

Prereq: 113 or 2-3 yrs h.s. Latin. Review of h.s. Latin with reading of easy prose.

### 212 Intermediate Latin (4)

Prereq: 211. Continuation of 211. Reading of Vergil.

### 213 Intermediate Latin (4)

Prereq: 212. Continuation of 211-212. See 212 for description. Passing 213 fulfills foreign language requirements of College of Arts and Sciences for AB degree.

### 351 Latin Prose and Poetry (3)

Prereq: 213 or 4 yrs h.s. Latin, or 3 yrs h.s. Latin and perm. *S. Foulk*. Review of essential Latin. Reading of Cicero's essays, a play of Plautus or Terence, Horace's *Odes* and *Epodes*.

### 352 Latin Prose and Poetry (3)

Prereq: 213. Continuation of 351. See 351 for description.

### 353 Latin Prose and Poetry (3)

Prereq: 203. Continuation of 351-352. See 351 for description.

### 364 The Teaching of High School Latin (3)

Prereq: 203. (on demand) *H. Hultgren*. Content and methods of teaching h.s. Latin courses.

### 411 Latin Literature of the Republic (3)

Prereq: 353. (1976-77) Selections from works of Plautus, Terence, Caesar, Cicero, Lucretius, Catullus and Sallust.

### 412 Latin Literature of the Republic (3)

Prereq: 353. Continuation of 411. See 411 for description.

### 413 Latin Literature of the Republic (3)

Prereq: 353. Continuation of 411-412. See 411 for description.

### 415 Latin Literature of the Early Empire (3)

Prereq: 353. (1975-76) Selections from works of Vergil, Horace, Livy, Ovid, Martial Tacitus, Juvenal and Pliny the Younger.

### 416 Latin Literature of the Early Empire (3)

Prereq: 353. Continuation of 415. See 415 for description.

### 417 Latin Literature of the Early Empire (3)

Prereq: 353. Continuation of 415-416. See 415 for description.

### 419 Readings in Latin Literature (3)

Prereq: 353. (1976-77) Selections complement students' other readings in Latin literature.

### 420 Readings in Latin Literature (3)

Prereq: 353. Continuation of 419. See 419 for description.

### 421 Readings in Latin Literature (3)

Prereq: 353. Continuation of 419-420. See 419 for description.

### 433 Advanced Latin Syntax (3)

Prereq: 353. (on demand) *P. Murphy*. Writing of Latin prose.

### 440 Special Work in Latin (1-6, max 12)

Prereq: 353. (on demand) Specialized work in selected phases of classical study.

## FRENCH

See Foreign Languages and Literatures.

## GEOGRAPHY

The requirements of geography majors studying for the AB or BS degree are 50 quarter hours in approved geography courses including 101, 121, 130, 312, 360, 470, 477 and at least one course from each of the following groups:

a) 230, 330, 331, 332, 430; b) 201, 321, 325, 327, 429. Completion of the above requirements automatically completes the College of Arts and Sciences requirement of 9 hours in the major at the junior-senior level.

Majors are not permitted to take geography courses on a pass/fail basis.

Students wishing to pursue the BS degree must obtain a strong background in the natural sciences. The selection of specific courses will be dependent on the student's interest and the advice of the faculty.

### 101 Elements of Physical Geography (5)

Systematic survey of temperature, precipitation, atmospheric and oceanic circulation and global systems of climate, soils, natural vegetation and landforms. 4 lec, 2 lab.

### 121 Elements of Cultural Geography (4)

Examination of spatial dimensions of culture, emphasizing patterns of variation of selected cultural elements—language, religion, population, settlement, etc.—from spatial perspective and within particular spatial frameworks.

**130 Economic Geography (4)**

Systematic survey of basic economic patterns, locational factors affecting patterns and spatial interrelationships influencing production.

**140 World Regional Geography—Eurasia (4)**

(fall) Survey of selected geographical elements—physical, cultural and/or economic—which influence land utilization, historical-cultural development and political modernization of Europe and Asia.

**141 World Regional Geography — Africa and Oceania (4)**

(winter) Survey of selected geographical elements—physical, cultural and/or economic—which influence land utilization, historical-cultural development and political modernization of Africa, Australia, New Zealand and Pacific Islands.

**142 World Regional Geography—Western Hemisphere (4)**

(spring) Survey of selected geographical elements—physical, cultural and/or economic—which influence land utilization, historical-cultural development and political modernization of North and South America.

**201 Environment and Man (4)**

Geographic survey of environmental changes caused by man's activities. Focus on problems of pollution of air, water, and biosphere and destruction of plant and animal communities.

**230 Introduction to Urban Geography (4)**

Urbanization, economic bases of cities, urban population characteristics, and internal and external relationships in urban areas, with a special emphasis on the American city.

**240 Geography of Eastern United States (3)**

Systematic and regional survey of eastern United States. Emphasis on cultural and economic development as conditioned by ethnic and environmental effects.

**241 Geography of Western United States (3)**

Systematic and regional survey of western United States. Emphasis on cultural and economic development as conditioned by ethnic and environmental effects.

**242 Geography of Ohio (3)**

*H. Wilhelm.* Detailed regional study of physical background, settlement, and economic development.

**260 Map Reading and Interpretation (4)**

(fall) *H. Bloemer.* Uses and abuses of maps. Interpretation of topographic, thematic and cadastral maps. Emphasis on map analysis. 2 lec, 2 lab.

**301 Advanced Physical Geography (4)**

Prereq: 101, 311 or 312. Application of physical

geographic principles to specific research problems.

**311 Elements of Meteorology (5)**

Prereq: 101. *R. Isaac.* General survey of physical principles of weather. 4 lec, 2 lab.

**312 Climate (5)**

Prereq: 101 or 311. *R. Isaac.* Exchanges of energy and moisture and their significance in man's utilization of earth's surface. 4 lec, 2 lab.

**321 Advanced Cultural Geography (4)**

Prereq: 121 or perm. *J. Cobban.* Systematic study of interaction of man and his societies with land. Emphasis on man's adaptation to and modification of earth's surface.

**325 Principles of Political Geography (4)**

Prereq: 121 or perm. (winter) *B. Walter.* Systematic examination of basic approaches, topics and spatial concepts in political geography, with case studies. Emphasis at nation-state level.

**330 Transportation Geography (4)**

Prereq: 130 or perm. Transportation systems in relation to economic structure of regions and as a basis for interregional linkages.

**327 Geographic Perspectives on Resource Management and Conservation (4)**

Prereq: 201 or perm. (winter) Problems in management of renewable natural resources approached from geographic and ecologic viewpoints.

**331 Geography of Agricultural Activity (4)**

Prereq: 130 or perm. Spatial organization in agricultural systems.

**332 Geography of Manufacturing (4)**

Prereq: 130 or perm. Industrial location theory and practice.

**340 Geography of Western Europe (4)**

*H. Wilhelm.* Physical, cultural and economic geography of western Europe.

**341 Geography of Eastern Europe (4)**

Physical, cultural and economic geography of eastern Europe.

**342 Geography of the Soviet Union (4)**

Physical, cultural and economic geography of the Soviet Union.

**345 Southeast Asia I (4)**

(fall) *J. Cobban.* Systematic survey of physical and cultural aspects of Southeast Asia.

**346 Southeast Asia II (4)**

Prereq: perm. (winter) *J. Cobban.* Regional study of specific problems of Southeast Asia.

**350 Geography of Northern Africa (4)**

*F. Bernard, B. Walter.* Physical and cultural-

historical geography and problems of economic development of northern Africa.

**351 Geography of Sub-Saharan Africa I—Systematic (4)**

Prereq: 121 or perm. (fall) *B. Walter*. Systematic examination of 4 selected themes relevant to modern geography of Africa. Emphasis on problems of development.

**352 Geography of Sub-Saharan Africa II—Regional (4)**

Prereq: 121 or perm. (winter) *B. Walter*. Regional survey of 4 major areas of tropical Africa. A. East, B. West, C. Equatorial, D. Central and South.

**355 Geography of South America (4)**

Prereq: 101, 121, or perm. (spring) *L. Williams*. Regional survey of South America with emphasis on problems of social and economic development within Andean countries.

**356 Geography of Middle America (4)**

Prereq: 101, 121, or perm. (winter) *L. Williams*. Regional survey of Mexico, Central America and West Indies, with emphasis on cultural history of region and current development problems.

**360 Cartography and Graphics (4)**

Prereq: perm. (fall) *H. Bloemer*. Introduction to basic design principles of esthetically pleasing maps, emphasizing legibility and readability from map user's viewpoint. Map construction ranges from simple map compilation to multi-color composition and scale reduction.

**361 Statistical Cartography (5)**

Prereq: perm. (winter) *H. Bloemer*. Cartographic techniques of representing quantitative data on maps.

**365 Air-Photo Interpretation (4)**

Prereq: perm. *H. Bloemer*. Principles and techniques used in air-photo interpretation for geographers, geologists, military, community planners and engineers.

**422 Population Geography (4)**

Prereq: 101, 121 or perm. (fall) *L. Williams*. Systematic survey of world population problems including distribution, composition, fertility, mortality, density, age-sex structure and impact of these on world population growth and resources.

**429 Settlement Geography (4)**

(spring) *H. Wilhelm*. Patterns and forms of rural settlement in terms of environmental, functional and traditional effects.

**430 Advanced Urban Geography (4)**

Such selected topics as internal structure, urban physical environment and others.

**460 Advanced Cartography (5)**

Prereq: 360, 361 or perm. (spring) *H. Bloemer*. Computer aided cartography for quantitative data, culminating in application of cal-comp plotter.

**470 Development of Geographic Thought (4)**

Prereq: geography major or perm. (spring) *B. Walter*, *J. Cobban*. Philosophical examination of evolution of geography as an academic discipline: historical theme covers major traditions, ideas, concepts, trends, controversies and prominent geographers.

**475 Research Methods in Geography (4)**

Prereq: perm. (fall) *N. Bain*. Research materials, methods of investigation and presentation of geographic data.

**476 Field Methods (5-9)**

Prereq: perm. (summer) Introduction to geographic field methods and techniques in rural and/or urban areas, involving field mapping and recording, spatial sampling, interviewing, coding and visual recording, field analysis and reporting and summarizing.

**477 Quantitative Methods (4)**

Prereq: perm. *R. Isaac*. Systematic survey of quantitative techniques employed by geographers.

**490 Geographic Studies (1-5, max 10)**

Prereq: perm. *N. Bain* (B, I), *F. Bernard* (G), *H. Bloemer* (A), *R. Isaac* (C, D), *B. Walter* (E), *H. Wilhelm* (H), *L. Williams* (I), *Staff* (D, F, J). Supervised studies in fundamentals of geographic research. A. Cartography, B. Economic, C. Meteorology and Climatology, D. Physical, E. Political, F. Regional, G. Resource Management and Conservation, H. Settlement, I. Urban, J. Field Problems.

## GEOLOGY

Required courses for the BS degree in minimum preparation for a professional career in geology are 101, 330, 356, 340, 315, 320, 350, 353, 360, 387 and at least 11 hours from 331, 386 or the 400 level. In addition, the following extradepartmental courses are required: Chem 121, 142 and 143, physics through 253 or 203 and mathematics through 263B.

The major requirement for the AB degree includes the following: 101, 330, 103 or 356, 211, 310, 340, 360 and at least 8 hours at the 400 level. Extradepartmental requirements include Chem 121 and 122, Phys 201 and Math 116. Students entering the AB program should obtain a strong background in other natural sciences.

The Geology Department also offers a special

professional program in the field of water resources. See special curricula in the College of Arts and Sciences.

#### 101 Earth Materials and Structure (4)

Nature and distribution of earth materials and their utilization as natural resources; discussion of earth structure, earthquakes, mountain building and continental drift. 3 lec, 2 lab. Not open to students who have had 283.

#### 102 Surface Processes and Environmental Geology (4)

Consideration of those processes and resources that influence man's utilization of surface of the earth. 3 lec, 2 lab. Not open to students who have had 283. It is recommended that students who plan to take both 101 and 102 take 101 first. Majors should take 330 instead of 102.

#### 103 Elements of Geology, Historical (4)

Prereq: 101 or 102. Earth history, emphasizing geologic history of North America. 3 lec, 2 lab, field trips. BS majors should take 356 instead of 103.

#### 201 Man and the Physical Environment (4)

Survey of geological aspects of environmental crisis. Focus on major environmental processes, immediate and extended influence of man and prospects for future of physical environment. Presupposes no background in the sciences. 4 lec, field trips.

#### 202 Common Minerals, Rocks and Fossils (3)

Study and identification of common minerals and rocks and common groups of fossils. 2 lec, 2 lab, field trips. Not open to students who have had 101, 291A or 310.

#### 211 Introductory Oceanography (3)

Survey of physical, chemical, biological and geological aspects of oceanography. 3 lec.

#### 270 World Mineral Resources (3)

Major deposits of metal, nonmetallic and fuel resources which form backbone of modern industry. Economics and basic geologic controls of mineral production are reviewed. 3 lec with demonstrations. Not open to geology majors.

#### 283 Geology for Engineers (5)

(spring) *S. Fisher*. Geologic principles applied to engineering projects and materials. 4 lec, 2 lab. Not open to students who have had 101.

#### 291 Selected Topics in Geology (2)

Five-week minicourses developed around specific topics in geology. A. Earth Materials. Characteristics of minerals and sedimentary, igneous and metamorphic rocks. Not open to those who have had 101. B. Glaciers and Glaciation. Behavior of glaciers and effects of glaciation. Causes of glaciation and prospects for future. Not open

to those who have had 102. C. Geologic Development of North America. Continental growth; character of marine invasions of North America; continental drift and mountain building. Not open to those who have had 103. D. Volcanism. Formation, types and characteristics of volcanoes, and effects of volcanoes on man and future activities. Not open to those who have had 101. E. Mineral Resources. Types and origins of mineral resources. Energy resources and effect on future society. Prereq: 101 or 291A. F. Fossils and Evolution. Origin and development of life through geologic time. Not open to those who have had 103. G. Soils and Weathering. Weathering of rocks and genetic relationship to major soil types. Not open to those who have had 102.

#### 310 Rocks and Minerals (5)

(winter) *G. Heien, W. Phelps*. Common minerals, rocks and related ores, including their classification, description, origin and use. 3 lec, 4 lab. Not open to BS geology majors.

#### 315 Crystallography and Mineralogy (5)

Prereq: Chem 142. (winter) *G. Heien* and *W. Phelps*. Elements of crystallography and introduction to crystal chemistry. Descriptive and determinative mineralogy using physical and chemical properties. 3 lec, 4 lab.

#### 320 Petrology (5)

Prereq: 315. (spring) *G. Heien* and *W. Phelps*. Rock-forming silicate minerals and major rock groups. Origin, composition, field classification and identification emphasized. 3 lec, 4 lab.

#### 330 Principles of Geomorphology (5)

Prereq: 101. (winter) *G. Smith*. Basic concepts of origin and development of landforms. Laboratory study of topographic maps and aerial photographs. 3 lec, 4 lab.

#### 331 Regional Geomorphology of North America (4)

Prereq: 330; 356 recom. (winter) *G. Smith*. General consideration of nature and origin of landforms of North America, emphasizing regional approach to study of landforms. 4 lec.

#### 340 Invertebrate Paleontology (5)

Prereq: 101. (fall) *M. Sturgeon*. Invertebrate fossils emphasizing their morphology, classification, biologic relationships and geologic occurrence. 3 lec, 4 lab, field work.

#### 350 Principles of Sedimentology (3)

Prereq: 320. (winter) *S. Fisher*. Principles of transport, deposition and diagenesis of sediments. 2 lec, 2 lab, field trips.

#### 353 Principles of Stratigraphy (3)

Prereq: 350. Should be taken concurrently with 360. (spring) *C. Chamberlain*. Basic concepts of



stratigraphy, historical development of facies concept, principles of stratigraphic nomenclature and correlation. 2 lec, 2 lab, field work.

### 356 Historical Geology (5)

Prereq: 330. (spring) *M. Sturgeon*. Earth and life history emphasizing geologic development, stratigraphy and fossil record of North America. 4 lec, 2 lab, field trips.

### 360 Structural Geology (5)

Prereq: 320, Phys 201, Math 263B or perm. (spring) *R. Yeats*. Principles of rock deformation from field and laboratory evidence, interpretation of folded and faulted rocks, introduction to tectonics. 3 lec, 2 lab, field work.

### 386 Geologic Field Methods (3)

Prereq: perm. (fall) Use of hand level, Brunton pocket transit, plane table and telescopic alidade, altimeter and aerial photographs in mapping. 6 lab.

### 387 Summer Field Geology (9)

Prereq: 320, 360 or perm. (7 weeks, including travel time, and 1 week report preparation, summer) *Staff*. Geologic mapping in deformed sedimentary, igneous and metamorphic terranes to include use of Brunton compass, hand level and air photos. Written field report will be required. Course conducted in central Nevada.

### 406 Geology of Ohio (3)

Prereq: 103 or perm. *M. Sturgeon*. Physiography, stratigraphy and economic geology of Ohio. 3 lec, field trips.

### 407 Topographic Map and Aerial Photo Interpretation (4)

Prereq: 330, 360 or perm. (winter) *G. Smith*. Principles of use of topographic maps and aerial photographs for study and interpretation of geologic and geomorphic features. 2 lec, 4 lab.

### 408 Statistical Applications in Geology (3)

Prereq: perm. (winter) *C. Chamberlain*. Basic statistical techniques with particular applications of statistics to geology. 3 lec.

### 413 Optical Mineralogy (4)

Prereq: 320, Phys 202. (fall) *G. Heien*. Optical characteristics of minerals in polarized light; identification of minerals with petrographic microscope. 2 lec, 4 lab.

### 415 X-Ray Methods (3)

Prereq: Phys 203, perm. (winter) *G. Heien*. Principles of x-ray diffraction and x-ray crystallography; identification of minerals; analysis of mineral structures by powder method. 2 lec, 2 lab.

### 422 Igneous and Metamorphic Petrography (4)

Prereq: 413. *R. Yeats*. Petrogenesis of igneous and metamorphic rocks and their description and classification in thin section. 2 lec, 4 lab.

### 424 Sedimentary Petrography (3)

Prereq: 350, 413. *S. Fisher*. Identification and environmental analyses of sedimentary rocks in thin section and grain mounts. 2 lec, 2 lab.

### 426 Principles of Geochemistry (3)

Prereq: 320, Math 263A. (spring) *G. Heien*. Principles of geochemistry, applied to various geologic environments, including principles of thermodynamics applied to geologic systems, phase equilibria, solution geochemistry. 3 lec.

### 432 Origin and Classification of Soils (4)

Prereq: 330 or perm. (spring) *G. Smith*. Consideration of concept of soil and factors of soil formation; introduction to soil morphology and systems of soil classification; discussion of major soil groups of the world and soils of Ohio. 3 lec, 2 lab, field work.

### 438 Glacial Geology (4)

Prereq: 330. (fall) *G. Smith*. Formation and behavior of glaciers, past and present; consideration of glacial processes, and causes and implications of ice ages. 3 lec, 2 lab, field trips.

### 441 Invertebrate Paleontology: Index Fossils (4)

Prereq: 340. (winter) *M. Sturgeon*. Selected index genera and faunas. 2 lec, 4 lab, field work.

### 446 Principles of Micropaleontology (4)

Prereq: perm. (winter) *C. Chamberlain*. Biology, morphology, taxonomic characteristics and uses of microscopic fossils. 2 lec, 4 lab.

### 448 Principles of Paleocology (4)

Prereq: 340, biology or zoology. 350, or perm. (fall) *C. Chamberlain*. Basic principles involved in reconstruction of paleoenvironments. 3 lec, 2 lab, field work.

### 460 Advanced Structural Geology (3)

Prereq: 360. (winter) *R. Yeats*. Mechanical analysis of deformed rocks, structural analysis using stereonet, structural petrology, present-day crustal deformation. 3 lec.

### 470 Economic Geology—Metals (4)

Prereq: 320. (fall) *W. Phelps*. Principles of metallic mineral deposition and survey of major ore deposits of the world. 3 lec, 2 lab.

### 471 Ore Deposits (3)

Prereq: 470. (winter) *W. Phelps*. Texture, paragenesis and origin of metallic ores in polished sections. 2 lec, 2 lab.

### 473 Economic Geology—Nonmetals (3)

Prereq: 320. (fall) *S. Fisher*. Principles of non-metallic mineral deposition and survey of non-metallic and coal deposits of the world. 2 lec, 2 lab.

### 475 Petroleum Geology (4)

Prereq: 360. (fall) *S. Fisher*. Origin, migration

and accumulation of petroleum and survey of major oil basins of the world. 3 lec, 2 lab.

#### 476 Subsurface Methods (4)

Prereq: 475 or perm. (winter) Resume of drilling, sampling and logging by electric, radioactivity, temperature, neutron methods as applied to petroleum exploration, water and engineering projects. 3 lec, 2 lab.

#### 480 Hydrogeology I (4)

Prereq: perm. (fall) *M. Ahmad*. Principles governing occurrence, movement and recovery of water in soil and aquifers. Hydrologic cycle, water budget, hydrology of agriculture, watershed studies, water chemistry and pollution. 3 lec, 2 lab.

#### 481 Hydrogeology II (4)

Prereq: perm. (winter) *M. Ahmad*. Steady and unsteady flow to a well, analysis of pumping test data, water well design, well development, interference of wells, design of well fields. 3 lec, 2 lab.

#### 483 Field Hydrology (4)

Prereq: water resources background. (summer) *M. Ahmad*. Field training in techniques of hydrology and water resources evaluation.

#### 485 Applied Geophysics (4)

Prereq: perm. (spring) *M. Ahmad*. Introductory course on seismic, magnetic, gravity and electrical prospecting. 3 lec, 2 lab.

#### 488 Geologic Field Reconnaissance (2 or 3)

Prereq: perm. (winter) Spring vacation period geologic field trips to selected areas in eastern and central United States with pertinent conferences, readings and reports.

#### 490 Seminar in Geology (1, max 3)

Prereq: perm. Several seminars on specific topics in geology will be offered yearly. It is recommended that all majors participate in at least 1 seminar.

#### 491 Geologic Studies (1-4, max 8)

Prereq: perm. *Ahmad* (C, E, I), *Chamberlain* (A, H, K, L), *Fisher* (B, C, H, L), *Heien* (D, J), *Phelps* (B, D, J, L), *Smith* (F, G), *Sturgeon* (A, H, K, L), *Yeats* (J, M). A. History of Geology, B. Economic Minerals and Fuels, C. Engineering and Environmental Geology, D. Geochemistry, E. Geophysics, F. Geomorphology and Physiography, G. Glacial Geology, H. Historical Geology, I. Hydrogeology, J. Mineralogy and Petrology, K. Paleontology and Paleogeology, L. Sedimentology and Stratigraphy, M. Structural Geology and Tectonics. Supervised studies in fundamentals of geologic research.

## GERMAN

See Foreign Languages and Literatures.

## GOVERNMENT

The major requirement for the AB degree is a minimum of 45 hours, including Govt 101 and 102. Majors must also take at least one course at the 300 level or above in each of the four areas of: American government; comparative government; international relations; political theory. Fulfillment of this distribution requirement also guarantees completion of the requirement of the College of Arts and Sciences of nine hours at the junior-senior level. Forty-five hours of government, including the specific requirements, must be taken on a *non pass/fail* basis.

#### 101 American National Government (4)

Not open to jrs and srs. Constitutional basis and development, political processes and organization of American national government.

#### 102 American National Government (4)

Prereq: 101. Continuation of 101. Not open to jrs and srs. Concerned with administration and policy making processes of national government in selected areas *i.e.*, welfare, civil rights, defense, etc.

#### 304 Politics in the American States (5)

Prereq: 101-102. *J. Tucker*. Comparative analysis of state political systems. Emphasis on structure and process of policy-making of states within a federal context.

#### 306 Politics of Appalachia (4)

Prereq: 101 or perm. Analysis of political processes of Appalachia. Emphasis on relationship between politics and economic development of the region. Among major policy areas considered are mining and its regulation, the War on Poverty in Appalachia and the politics of taxation in the region.

#### 320 Urban Politics (5)

Prereq: 101-102. *J. Tilling*. Impact of urbanization on structure and functions of municipalities. Emphasis on role of government in resolving community conflict. (Formerly 303)

#### 323 Black Politics in the United States (4)

Prereq: 101 or perm. Appraisal of economic and institutional structure of American society through social doctrines enunciated by black political theorists, which serve as inspiration and ideology for black political movements. Examines socio-political societies in various parts of Africa and interprets black political movements in cultural, philosophical, ideological and technological terms. (Formerly 305)

#### 330 Introduction to Comparative Government and Politics (4)

Introduction to dynamics, structures and comparison of contemporary political systems and processes.

**331 Comparative Government (4)**

Government and politics of Great Britain and another Commonwealth country.

**332 Comparative Government (4)**

Government and politics of France and Germany.

**333 Comparative Government (4)**

Government and politics of Communist party states with particular emphasis on the Soviet Union.

**335 The Politics of Developing Areas (4)**

Prereq: 8 hrs or perm. Major theories and problems of political, socio-cultural and economic development in new nations of Asia, Africa and Latin America, with special emphasis on heritage of colonialism, struggle for independence and political adjustments to rapid social and technological change.

**341 Government and Politics of Africa (5)**

Prereq: 8 hrs government or history. *E. Baum*. Development and structure of modern African states with emphasis on political processes in tropical Africa. (Formerly 441)

**350 International Relations (5)**

Prereq: 8 hrs. *R. Bald, S. Kim, J. Molineu*. Contemporary international system and major forces and conditions which affect current international politics. Special emphasis on role of conflict and need for peaceful conflict resolution.

**351 Current International Problems (4)**

Prereq: 350 or perm. *R. Bald, S. Kim, J. Molineu*. Selected case studies, crises and current issues illustrating major problems of contemporary international politics.

**371 Ancient and Medieval Political Thought (5)**

Prereq: 11 hrs. *A. Aichinger, J. F. Henderson, R. Hunt*. Major figures and basic concepts characteristic of political thought in ancient and medieval periods. Emphasis on original works of Plato, Aristotle, St. Augustine, Dante.

**372 Modern Political Thought (5)**

Prereq: 11 hrs. *A. Aichinger, J. F. Henderson, R. Hunt*. Basic philosophic conceptions of the state: Machiavelli to Hegel. Emphasis on original works of major political philosophers of this period.

**373 Contemporary Political Thought (5)**

Prereq: 11 hrs. *A. Aichinger, J. F. Henderson, R. Hunt*. Emphasis on tradition of political economy, utilizing original works of such individuals as J. S. Mill, K. Marx and F. Engels.

**390 Political Workshop (10-15)**

Prereq: 101-102 and 1 other course in government. (offered fall qtr of even numbered years) Intensive analysis of political organizations and

campaigning combined with field experience in campaigning.

**401 American Constitutional Law (3)**

Prereq: 14 hrs government or history. *R. Gusterson*. Principles underlying American constitutional government. Consideration of leading cases with reference to interpretation of the Constitution of the United States.

**402 American Constitutional Law (3)**

Prereq: 14 hrs government or history. Continuation of 401. See 401 for description.

**405 American Political Parties (3)**

Prereq: 11 hrs. *R. Gusterson*. Origin, growth, organization and methods of parties; suffrage, nominations and elections; role of parties in a democracy.

**409 Law Enforcement (5)**

Prereq: 11 hrs. *R. Schaefer*. Role, function and problems of American judicial, prosecutory, policing and correctional systems in the political process. Crime and law as functions of social and political systems. Examination of relationship of law and social change in industrialized, urbanized and technical society.

**410 Public Policy (5)**

Prereq: 101-102. Analysis of major forces determining public policy. Policy areas, such as education, health and social welfare examined and relationship between information and decision-making explored.

**411 Public Administration (4)**

Prereq: 11 hrs. *E. Collins*. Development of administrative organizations, current ideas in organizational theory, nature of federal bureaucracy, fiscal management and control of administrative action.

**412 Public Personnel Administration (4)**

Prereq: 11 hrs. *E. Collins*. Philosophy, problems and procedures of public personnel management: recruitment, training, promotion policies, position classification and employer-employee relations.

**413 Administrative Law (5)**

Prereq: 11 hrs. *E. Collins*. Organization, functions and procedures of selected national regulatory agencies; principles affecting administrative discretion, administrative power over private rights, enforcement and judicial control of administrative decisions.

**414 Political Leadership Behavior (5)**

Prereq: 11 hrs. *F. Gagliano, L. Johnson*. Examination of central role of leadership in political life, presenting major theories of leadership and allowing student to assess their usefulness for explaining political behavior. Explanatory models

drawn from perspectives of political psychology and political sociology, as well as from statecraft and political science.

#### 415 The American Presidency (3)

Prereq: 11 hrs. *R. Gusteson*. Analysis of office of national chief executive and its place in American political system. Attention given to constitutional status and powers, functional development and interrelationship of man and office.

#### 417 Legislative Politics (5)

Prereq: 11 hrs. *L. Johnson*. Examination of legislative behavior, especially at national level. (Formerly 408)

#### 418 Pressure Groups and Public Opinion (5)

Prereq: 11 hrs. *J. Tucker*. Organization and tactics of pressure groups and their impact on policy-making process. (Formerly 406)

#### 426 American Foreign Policy (3)

Prereq: 11 hrs government or history. *E. Collins*. Consideration of problems involved in formulation and execution of foreign policy. Particular emphasis on contemporary problems of American policymakers. (Formerly 420)

#### 427 Formulation of American Foreign Policy (5)

Prereq: 350 or 426. *J. Molineu*. Covers institutional and administrative as well as political and more informal processes whereby foreign policy decisions are formulated and implemented in United States. (Formerly 421)

#### 432 Government and Politics of the Soviet Union (5)

Prereq: 11 hrs, incl 333 or course in Soviet history. *D. Williams*. Institutions, nature and policies of Soviet system of government, including historical background, ideology and organization, as well as dynamics of ideology and power and nature of totalitarian systems.

#### 433 Soviet Foreign Policy (5)

Prereq: 11 hrs, incl 333 or a course in Soviet history. *D. Williams*. Analysis of foreign policies of U.S.S.R. Historical, ideological, strategic and other influences covered. Relations with bloc countries included.

#### 434A Government and Politics of Latin America (4)

Prereq: 11 hrs of government or course in Latin American history. *T. Walker*. Contemporary governments of Latin America. Emphasis on structure of political parties and institutions. (Formerly 334A)

#### 434B Government and Politics of Latin America (4)

Prereq: 11 hrs of government or course in Latin American history. *T. Walker*. Can be taken independently of 434A. Revolution in Latin America. Emphasis on Mexican and Cuban revolutions. (Formerly 334B)

#### 438 Government and Politics of Germany (5)

Prereq: 11 hrs including 332 or perm. *R. Buld*. Major political processes, personalities and institutions of contemporary West Germany, including key foreign policy issues.

#### 444 Race and Politics in Southern Africa (5)

Prereq: Any course on Africa. Political dynamics of race relations among diverse peoples of Southern Africa. Emphasis on competing ideologies of *apartheid* and black liberation. Appropriate American and international responses will be considered. (Formerly 462)

#### 445 Government and Politics of Japan (4)

Prereq: 11 hrs of government or Asian history. *W. Elsbree*. Political institutions and processes of Japan with emphasis on developments since 1945.

#### 446 Government and Politics of China (4)

Prereq: 11 hrs of government or Asian history. *W. Elsbree*. Political institutions and processes and major political developments in modern China.

#### 447A Government and Politics of Southeast Asia (4)

Prereq: 11 hrs government or history. *P. van der Veur*. From ancient empires to western colonial rule; rise of nationalism and arrival of independence in post WW II period. Main emphasis on political developments in Indonesia and the Philippines.

#### 447B Government and Politics of Southeast Asia (4)

Prereq: 11 hrs government or history. Continuation of 447A but can be taken independently. Period of independence since WW II with main emphasis on political developments in Indonesia and Malaysia.

#### 448 Southeast Asian Political Systems (4)

Prereq: by perm only. *P. van der Veur*. Discusses and analyzes various aspects of major themes such as nationalism, colonialism, political succession, national integration, etc.

#### 450H Honors in Government (5, max 20)

Prereq: acceptance in departmental honors program. Seminar on selected aspects of political science and approaches to study of politics to be followed by research for an honors thesis.

#### 452 Theory and Methodology of International Relations (5)

Prereq: 350 or perm. *J. Molineu*. Major theoretical approaches to study of international relations. Includes recent work in areas such as survey research, communications, decisionmaking, simulation, strategy and game theory. Both traditional theories and behavioral models will be examined. (Formerly 450)

**455 International Law (5)**

Prereq: 350 or perm. *S. Kim*. Role of international law in interstate relations and international organization.

**456 International Organization (5)**

Prereq: 350. *S. Kim*. Analysis of nature, development, structure and functions of international organizations with particular emphasis on United Nations.

**461 New States in World Politics (4)**

Prereq: 350. *E. Baum*. Detailed examination of impact of new states on international relations. Particular attention given to problems and foreign policies of new states.

**474 19th Century Political Thought (4)**

Prereq: 15 hrs government or European history. *W. Elsbree*. Movements in 19th century political thought in Europe; liberalism, socialism, irrationalism among subjects covered.

**475 Studies in Political Thought (5)**

Prereq: one course in political theory or perm. *A. Aichinger, J. F. Henderson, R. Hunt*. Selected issues in contemporary political theory, e.g., proposals for reform of political system, role of intellectuals in politics, analysis of key political concepts.

**476A American Political Thought (3)**

Prereq: 11 hrs of government or history. *A. Pringley*. Origin and development of political ideas from colonial period through slave controversy.

**476B American Political Thought (3)**

Prereq: 11 hrs of government or history. Continuation of 476A but can be taken independently. Begins with Social Darwinism and concludes with contemporary political ideas in America.

**479 Latin American Political Thought (4)**

Prereq: 11 hrs. *T. Walker*. Evolution of Latin American thought from independence movements to present. Emphasis on representative thinkers of major intellectual controversies. Attention paid to influence of foreign ideologies and socio-economic conditions. Students will read original sources or their translations.

**481 Modern Political Analysis (5)**

Prereq: 20 hrs, perm. *D. Dabelko*. Examination of problems of knowledge in social sciences with particular emphasis on political science. Analysis of major theories or approaches developed in political science recently. (Formerly 471)

**482 Quantitative Political Analysis (5)**

Prereq: 481 or perm. *D. Dabelko*. Designed to show relevance of scientific research techniques to study of politics. (Formerly 472)

**485 Personality and the Political Process (5)**

Prereq: 15 hrs or perm. *D. Dabelko*. Relevance of personality characteristics, psychological mechanisms and life history factors in explaining political behavior. Topics are behaviorism, psychoanalytic theory, authoritarianism, dogmatism and other personality traits as related to political beliefs and behavior. (Formerly 473)

**490 Studies in Government (3-5)**

Prereq: 11 hrs, perm. Intensive study of special topics in field of government, including American government and politics, comparative government, international relations, political theory and public administration.

**491 Research in Government (1-5, max 10)**

Prereq: 18 hrs and advance perm of instructor. Research in selected fields of government.

**498 Problems in Government (1-5, max 10)**

Prereq: 18 hrs and advance perm of instructor. Research or directed reading based on student's special interest.

## GREEK

See Foreign Languages and Literatures.

## HAUSA

See Foreign Languages and Literatures.

## HEALTH, PHYSICAL EDUCATION AND RECREATION

**100A Archery (1)**

**100B Badminton (1)**

**100C Basic Movement (1)**

**100D Basketball (1)**

**100D Yogi (1)**

**100E Boating (1)**

**100F Bowling (1)**

**100G Conditioning and Weight Training (1)**

**100H Crosseball (1)**

- 100I Curling (1)
- 100J Fencing (1)
- 100K Folk and Dance (1)
- 100L Golf (1)
- 100M Intermediate Golf (1)
- 100N Gymnastics (1)
- 100O Handball (1)
- 100P Judo (1)
- 100Q Karate (1)
- 100R Life Saving (1)
- 100T Skating (1)
- 100U Figure Skating (1)
- 100V Advanced Figure Skating (1)
- 100W Squash (1)
- 100X Swimming (1)
- 100Y Intermediate Swimming (1)
- 100Z Tennis (1)
- 100.1 Intermediate Tennis (1)
- 100.2 Volleyball (1)
- 100.3 Social Dance (1)
- 100.4 Scuba (1)
- 100.5 Water Polo (1)
- 100.6 Modern Dance (1)
- 100.7 Ice Hockey Fundamentals (1)
- 100.8 Lacrosse (1)
- 100.9 Softball (1)
- 101A Intermediate Judo (1)
- 101B Intermediate Karate (1)
- 101C Advanced Tennis (1)
- 101E Cycling (1)
- 101F Paddleball (1)
- 101F Advanced Swimming (1)
- 101G Intermediate Handball (1)
- 101G Beginning Diving (1)
- 101H Intermediate Fencing (1)
- 101I Orienteering (1)
- 101J Advanced Cycling (1)
- 101K Team Handball (1)
- 101L Advanced Orienteering (1)

**101M Skiing (1)**

**103W Swimming I (2)**

Prereq: physical education major or minor or perm. Basic swimming skills for nonswimmers and beginners.

**104W Swimming II (2)**

Prereq: 103W or students with deep-water swimming skills. Instruction in basic strokes and related aquatic skills at intermediate level.

**106C Analysis of Movement (3)**

Prereq: physical education major or minor or perm. Practical application of basic mechanical principles fundamental to posture, body mechanics, sports, dance and related activities.

**107C Modern Dance I (2)**

Prereq: physical education major or minor or perm. Basic principles of dance technique. Movement progressions involving relationships of time, space and dynamics.

**108C Modern Dance II (2)**

Prereq: 107 or equiv. Complex movement progressions, and experimentation in movement form and composition.

**115C Rhythmics (2)**

Prereq: physical education major or minor or perm. Practical approach to rhythm fundamentals through various dance forms, *e.g.*, folk, social, contemporary, creative.

**116C Social Forms of Dance (2)**

Prereq: 115C or perm. Intermediate skills in ballroom, folk, round, mixers, couple and contra dance.

**141W Golf and Archery (2)**

Prereq: physical education major or minor or perm. Skills, knowledges and rules of golf and archery.

**202C Personal and Community Health (4)**

Practices and appreciation of means whereby health of individual and group may be maintained.

**204C Drugs, Alcohol and Tobacco (3)**

Prereq: 202. In-depth study of contemporary issues—drugs, alcohol and tobacco for prospective teacher.

**218C Life Saving and Water Safety (2)**

Prereq: 104W or equiv or perm. Principles and practices of life saving for American Red Cross certification.

**220C Water Safety for Instructors (2)**

Prereq: Current Red Cross Life Saving Certificate. For those who hold valid American Red Cross Life Saving Certificate. Includes analysis of swimming, life saving techniques and teaching practices.

**221W Tennis-Badminton (2)**

Prereq: physical education major or minor or perm. Court skills, tactics, strategy and rules for both singles and doubles play.

**222W Tumbling and Modern Gymnastics (2)**

Prereq: physical education major or minor or perm. Stunts, tumbling and modern gymnastics.

**223W Track and Field (2)**

Prereq: physical education major or minor or perm. Track and field activities suitable for girls and women.

**227C First Aid (3)**

Principles and practices of American Red Cross first aid. Standard certificate is granted if requirements are met.

**234C Laboratory Experience in Physical Education (1-3)**

Prereq: sr rank. Supervised teaching in public school physical education programs. Students must apply during the quarter preceding that of actual assignment. Course may be repeated in excess of 3 hrs credit with approval.

**225W Artistic Gymnastics**

Prereq: 222W. Floor exercise, balance beam, vaulting and uneven parallel bars.

**236C Field Experience in Recreation (1-3)**

Prereq: soph rank and 250. Designed to provide sophomore recreation student with an opportunity to acquire supervised experiences in skills and techniques involved in differing areas of recreation.

**250C Recreation Leadership (3)**

Prereq: recreation major and/or minor or perm. Lectures and discussions concerning value of recreation, leadership techniques and selection of activities.

**251C Art and Nature Crafts for Recreational Programs (3)**

Prereq: recreation major/minor or perm. Organization of art and nature crafts program and actual experiences in use of various craft materials with a particular emphasis on nature crafts.

**252C Kinesiology (4)**

Prereq: Zool 301. Analysis of human movement based on anatomical and mechanical principles.

**261M Introduction to Physical Education (1)**

Lectures, discussion and visual aids pertaining to scope and content of professional physical education.

**262W Field Hockey and Soccer (2)**

Prereq: physical education major or minor or perm. Skills, tactics, strategy and rules of field hockey and soccer.

**263W Basketball-Volleyball (2)**

Prereq: physical education major or minor or perm. Fundamental skills, team tactics and strategies and rules for games of basketball and volleyball.

**264W Softball and Lacrosse (2)**

Prereq: physical education major or minor or perm. Skills, tactics, strategy and rules of softball and lacrosse.

**266C Elementary School Physical Education Workshop (2)**

Theory, teaching methods, techniques and materials in elementary school physical education, with emphasis on appropriate rhythmical, individual and group activities.

**267M Program Skills (2)**

Teaching methods, techniques, materials and equipment, theory and practice in swimming.

**270C Teaching of Physical Education (3)**

Lab and lecture experiences for teaching physical education in elementary school. Designed for elementary education students.

**275C Elementary School Rhythms and Dance (3)**

Rhythmics and dance activities for elementary level, involving movement exploration, creative dance and traditional dance.

**280M Methods — Analysis and Description in Teaching Physical Education (3)**

Prereq: jr rank. Methods and materials of teaching-learning process for physical education classroom.

**290M The Art of Sport Officiating (2)**

Provides a meaningful, educational experience of a practical nature in area of sport officiating.

**300C Elementary School Physical Education I (3)**

Theory, teaching methods, techniques and materials in elementary school physical education with emphasis on basic movement education for levels K-3.

**301C Elementary School Physical Education II (3)**

Theory, techniques and materials for elementary school physical education program with emphasis on lead-up activities, creative game analysis and sport and recreational skills for levels 4-6.

**302C Motor Learning (4)**

Prereq: Psy 375, Zool 345. Consideration of psychological, sociological and physiological bases of learning and application of these theories to performance.

**305C Coaching of Swimming (2)**

Theory of coaching swimming and diving; analysis of skill, methods, duties and responsibilities.

**310C Program Planning and Facilities for Recreation (5)**

Prereq: recreation major/minor or perm. Concepts and fundamentals of recreation programs, program planning and care, selection and design of recreation facilities.

**314C Camping (4)**

Prereq: recreation major/minor or perm. Introduction to and experiences in different methods of camping and various skills associated with camping.

**315C Outdoor Education and Recreation (4)**

Prereq: recreation major/minor or perm. Designed to provide the student with fundamental knowledges necessary to provide learning experiences in the out-of-doors and for teaching necessary skills for outdoor living enjoyment.

**318C Coaching of Tennis (3)**

Prereq: intermediate skill level. Theory of coaching tennis: analysis of skills, strategies, methods, duties and responsibilities. Limited practical work.

**320C Coaching of Wrestling (3)**

Theory of coaching wrestling: analysis of skills, strategies, methods, duties and responsibilities.

**322M Program Skills (2)**

Teaching methods, techniques, materials, theory and practice in stunts and tumbling, apparatus, demonstrations and exhibitions, marching and conditioning activities.

**324C Coaching of Soccer (5)**

Theory of coaching soccer: analysis of skills, strategies, methods, duties and responsibilities.

**328C Instructor's First Aid (4)**

Prereq: current first aid certificate. As prescribed and certified by the American Red Cross.

**329C Introduction to Athletic Training (2)**

Prereq: Zool 301, Zool 345 and perm. Treatment and prevention of athletic injuries.

**330W Methods of Teaching Elementary and Secondary Physical Education (3)**

Prereq: 3 theory and practice courses (9 hrs credit) or 300C and 301C. Discussion and application of selected methods and techniques used in teaching of physical education.

**333C Theory of Adapted Activities (3)**

Prereq: Zool 301. Organization of physical activity programs adapted to needs of atypical individuals.

**334C Advanced Laboratory Experience in Physical Education (3)**

Prereq: jr rank and 234C. Supervised teaching in public school physical education programs. Student may serve as team leader for 234C students. Students must apply during qtr preceding that of actual assignment. May be repeated with approval.

**336C Field Experiences in Recreation (3)**

Prereq: jr rank and/or perm. Designed to provide junior recreation student with an opportunity to acquire experience in skills and techniques involved in differing areas of recreation.

**337W Dance Composition (2)**

Prereq: 108 or equiv. Basic principles of composition, presentation and choreography.

**339C Athletic Officiating (3)**

(fall only) Football—Rules, mechanics and procedures in officiating. Practice under actual game conditions in Intramural Sports Program. State certification upon successful completion of National Examination given in football. OHSAA fee for certification and books.

**340C Athletic Officiating (3)**

(winter only) Basketball—Rules, mechanics and procedures in officiating. Practice under actual game conditions in Intramural Sports Program. State certification upon successful completion of National Examination given in basketball. OHSAA fee for certification and books.

**340C Sports Officiating I (1)**

Officiating field hockey and soccer.

**341C Athletic Officiating (3)**

(spring only) Baseball—Rules, mechanics and procedures in umpiring. Practice under actual game conditions in Intramural Sports Program. State certification upon successful completion of National Examination given in baseball. OHSAA fee for certification and books.

**341C Sports Officiating II (1)**

Officiating basketball and volleyball.

**342C Sports Officiating III (1)**

Officiating softball, track and field.

**345C Camp Leadership (2)**

Responsibilities of camp personnel at executive, administrative, supervisory and functional levels. Includes different types of organized camps and their individual programs.

**350C Independent Study (1-5)**

Prereq: perm. Study and/or research in selected fields related to health, physical education, athletics, intramurals or recreation under direction of HPER undergraduate committee and faculty member.

**351C Coaching of Golf (2)**

Theory of coaching golf: analysis of skills, methods, duties and responsibilities.

**352C Coaching of Ice Hockey (3)**

Theory of coaching ice hockey: analysis of skills, strategies, methods, duties and responsibilities.



**353C Coaching of Lacrosse (3)**

Theory of coaching lacrosse: analysis of skills, strategies, methods, duties and responsibilities.

**355C Perceptual Motor Development in Children (3)**

Prereq: 106C and 302C. Principles and practices in perceptual-motor development as they relate to children's movement experiences.

**360 Environmental Health and Safety Epidemiology (5)**

Prereq: 90 hrs. Basic environmental health and safety concepts, practices and procedures of practical application in community health agencies.

**365C Coaching of Basketball (3)**

Theory of coaching basketball: analysis of skills, strategies, methods, duties and responsibilities.

**366C Coaching of Baseball (3)**

Theory of coaching baseball: analysis of skills, strategies, methods, duties and responsibilities.

**367C Coaching of Football (3)**

Theory of coaching football: analysis of skills, strategies, methods, duties and responsibilities.

**368C Coaching of Track (3)**

Theory of coaching track: analysis of skills, strategies, methods, duties and responsibilities.

**369C Teaching of Health (5)**

Prereq: HPEC 202; EdSe 250. Instruction, principles and curricula used in presenting health information to pupils in elementary and secondary schools.

**370C Community Health Programs (4)**

Prereq: 202, 369 or perm. Institutional frameworks for promoting and maintaining health of the people in community, state and nation.

**371C Theory and Practice of Team Sports (3)**

Prereq: 262W, 263W or 264W. Analysis and teaching progression of team-sport skills. Organizational techniques and practices.

**372C Theory and Practice of Individual Sports (3)**

Prereq: 141W, 221W or 223W. Analysis and teaching progression of individual sport skills. Organizational techniques and practices.

**373C Theory and Practice of Aquatics (3)**

Prereq: 104W, 218C or 220C. Analysis and teaching progression of aquatic skills and related activities. Organizational techniques and practices.

**374C Theory and Practice in Rhythmic Activities (3)**

Prereq: 107 or 108, 115 and 116. Teaching progression and materials for rhythmic programs on secondary level.

**375C Theory and Practice of Gymnastics (3)**

Prereq: 222W and 225W. Materials, techniques and practice of artistic and rhythmic gymnastics.

**376C Institutional Recreation (4)**

Prereq: recreation major/minor or perm. Study of therapeutic recreation service, principles and practices in various types of institutions.

**380C Safety Education (4)**

Preparation for assuming responsibility for programs of safety education and accident prevention in schools, industry and public services.

**381C Administration of Intramural Sports (4)**

Organizing and administering a program of intramural sports for all age levels.

**403C History of Recreation (3)**

Prereq: recreation major/minor or perm. Study of historical development of recreation from "early worlds" to present. Emphasis on contribution of recreation and its affect on man throughout history and its impact and implication for man's use of leisure time in present-day society.

**404C History and Principles of Physical Education (4)**

Prereq: jr or sr rank. History of sport and physical education from ancient to modern times. Principles underlying physical education in modern program of education.

**406M Organization and Administration of Physical Education (5)**

Prereq: jr or sr rank. Organization and administration of physical education, intramural, athletic and recreation programs in elementary and secondary schools.

**406W Organization and Administration of Physical Education (5)**

Prereq: jr or sr rank. Organization and administration of physical education, intramural, athletic and recreation programs in elementary and secondary schools.

**409C Tests and Measurements (4)**

Prereq: sr rank. Administration and evaluation of tests in health, physical education and athletics; practice in handling test data by elementary statistical methods.

**414C Physiology of Exercise (4)**

Fundamental concepts describing reaction of organ systems to exercise; study of work produced by muscle; special areas include sport conditioning, muscular fatigue, physiology and nutrition in exercise, weight control and exercise; physical fitness; exercise and environmental stresses; review of recent research in exercise physiology and human performance.

**415C Physiology Exercise Lab (2)**

**420C Advanced Athletic Training (4)**

Prereq: 329. Advanced techniques in prevention and care of athletic injuries.

**435C Recreation and Physical Education for the Mentally Retarded and Learning Disabled (5)**

Prereq: perm. Preparation for presenting activities and evaluating mentally retarded and learning disabled children and youth in areas of body mechanics, physical fitness, games of low organization, sports, rhythms, stunts, tumbling and recreation activities.

**440C Internship in Recreation (12)**

Prereq: recreation major and perm. Supervised professional field work experiences in an approved program of recreation.

**449C Community Recreation (4)**

Prereq: sr rank. History of play movement, programs and program building, administration of playgrounds, community centers and recreational activities.

**453C Clinical Observation and Practice in Physical Medicine and Rehabilitation (6)**

Prereq: Zool 301, 345 or equiv. (summer) Concentrated summer school field course at V.A. hospital, Chillicothe. Instruction by hospital corrective therapy staff. Open to sr majors or grad students in physical education.

**464C Community Health Services Practicum (15)**

Prereq: sr rank. Participation in activities of an official or voluntary public health agency. Supervision of experience to be done by agency personnel and University faculty.

**495C School Health Problems (5)**

Prereq: 369 and sr rank. Principles, problems, organization and administration of school health programs, including school and community relationships.

## HEARING AND SPEECH SCIENCES

The curriculum in hearing and speech sciences is designed to give the student a basic understanding of the causes and treatment of various speech and hearing disorders. Students who plan to qualify for an Ohio Teaching Certificate in Speech and Hearing Therapy make application for this certificate through the College of Education. Students who do not intend to qualify for this certificate, and therefore do not intend to student teach, must apply personally to the director of the School of Hearing and

Speech Sciences for admission to the clinical major program and will be required to complete special academic and practicum requirements in the major and in related fields.

**107 Voice and Articulation (2)**

Prereq: Open only to HSS majors. Designed to help each student recognize, evaluate and compensate for or improve speech production characteristics.

**108 Introduction to Speech Disorders (3)**

Symptoms, causes, effects and evaluation of disorders of speech, voice and language.

**309 Phonetics (3)**

(fall, spring) Speech sounds from a sociological, physiological and acoustical point of view. Mastery of International Phonetic Alphabet and practice in English phonetic transcription.

**310 Language Development (5)**

Prereq: 309. (winter) Provides foundation in normal speech and language development. Development of meaning, symbolic representation, morphology and syntax.

**313 Respiratory and Phonatory Mechanisms (3-4)**

(fall) Structures, musculature and functions involved in respiration, phonation, resonance and articulation for speech.

**314 Articulatory and Auditory Mechanisms (3-4)**

Prereq: 313. (winter) Structures, musculature, functions and neurology involved in audition and speech.

**336 Speech and Hearing Disorders in the Public Schools (3-4)**

Nature, causes and treatment of defective speech in public schools with special reference to role of classroom teacher. Not open to HSS majors.

**345 Social Dialects (4)**

Prereq: 309, 310, HSS majors only. (winter) Introduction to study of social dialects. Problems and controversies surrounding various issues of speakers of social dialects. Training in recognition of dialectal variations and in teaching standard English to speakers of other dialects.

**350 Speech Science (3-4)**

(fall) Physical properties of speech signal. Analysis of speech and speech perception.

**351 Laboratory Methods in Speech Science (3-4)**

Prereq: 350. (winter) Physical parameters of speech signal. Laboratory exercises and experiments emphasized. 2 lec, 3 lab.

**370 Basic Audiology (3-4)**

Prereq: 314, 350. (spring) Measurement of hearing with pure tone techniques and interpretation

of results of such measurements in terms of social and educational handicap.

### **371 Auditory Rehabilitation (3-4)**

Prereq: 370, HSS majors only. (fall, winter) Basic remedial procedures employed with hearing handicapped. Practice in planning lessons in speech reading and auditory training.

### **415 Stuttering (5)**

Prereq: HSS majors only; 9 hrs psychology. (winter) Consideration of causes, types and effects of stuttering. Evaluation of stuttering. Practical consideration of therapy for stutterers, with emphasis on children's problems.

### **418 Disorders of Articulation (5)**

Prereq: HSS majors only; 309, 310. (fall) Phonetic acquisition, articulation evaluation. Emphasis on practical approaches to therapy for individuals with articulation disorders.

### **419 Disorders of Voice (4)**

Prereq: HSS majors only; 313. (spring) Consideration of types and causes of functional and organic voice problems. Evaluation of phonatory problems. Emphasis on practical approaches to therapy.

### **422 Diagnostic Procedures in Speech Pathology (3-4)**

Prereq: 12 hrs speech pathology, 9 hrs psychology. (spring) Types of diagnosis in evaluation of speech and language problems. Screening tests; use of statistics in testing; basic interview and history procedures.

### **424 Neuropathologies of Speech and Language (3-4)**

Prereq: 313, 314. (fall, winter) Types, causes and syndromes of more significant pathologies of speech and language. Particular attention paid to neurological disorders.

### **433 Professional Training Seminar (3-4)**

Prereq: sr rank, perm. Seminar in concepts underlying therapy procedures. Application of psychological, physiological and neurological principles in various rehabilitation approaches. Lab time required.

### **437 Speech and Hearing Therapy in the Public Schools (2)**

Prereq: eligibility for student teaching. Methods, organization and implementation to speech and hearing programs in public schools. Must be taken concurrently with student teaching.

### **240A Practicum (2)**

Prereq: HSS majors only. Lectures and videotapes of diagnosis, therapy planning, therapy and various areas of the profession. 2 class meetings per wk.

### **240B Practicum (1)**

Prereq: 240A. Observation of therapy videotapes. 1 class meeting per wk.

### **341A Practicum (1)**

Prereq: 240A, B. Assignment to diagnosis, planning of therapy and therapy activity. One staff meeting per wk plus clinic time.

### **341B Practicum (2)**

Prereq: 341A. Lecture on diagnosis and therapy techniques. 1 class meeting per wk plus clinic assignment.

### **442A Practicum (1)**

Prereq: 341B. 1 class meeting per wk. Diagnosis, planning of therapy, therapy experience. Ratio of 3 clock hrs per wk per qtr hr.

### **442B Practicum (1)**

Prereq: 442A. Diagnosis, planning of therapy, therapy experience. Ratio of 3 clock hrs per wk per qtr hr.

### **442C Clinical Internship (3-15)**

Prereq: approval of clinic director. Placement in a clinic setting for 1 qtr. Application of diagnosis, therapy planning and therapy techniques. Must have applied and been approved for internship during jr yr. Apply in writing to HSS undergraduate coordinator.

### **443 School and Clinical Programs (4)**

Prereq: HSS majors only. (winter) Organization, planning and function in public school, community and agency programs. Prerequisite to student teaching.

### **444 Disorders of Language (4)**

Prereq: 310, 418; HSS major only. (winter, spring) Introduction to study of disorders of language in children. Diagnosis of problems, assessment of language abilities. Methodologies and techniques in perceptual, psychomotor and language and speech training.

### **472 Auditory Disorders in Children (3-4)**

Prereq: 370, 371, 424; HSS majors only. (winter, spring) Emphasis on identification audiometry and differential diagnosis of children with suspected auditory disorders.

### **479 Basic Manual Communication (1)**

Prereq: HSS majors only. (fall, winter) Basic instruction and practice in fingerspelling and signing used by and for the deaf and hard of hearing.

### **480 Advanced Manual Communication (1)**

Prereq: HSS majors only. (winter, spring) Advanced instruction and practice in fingerspelling and signing used by and for the deaf and hard of hearing.

**498 Special Problems (3-5, max 12)**

Prereq: written proposal and perm in qtr prior to registration. Not open to graduate students.

**499 Independent Reading in Speech Pathology, Audiology and Speech Science (3-5, max 12)**

Prereq: written proposal and perm in qtr prior to registration. Not open to graduate students.

## HISTORY

The major requirement for the AB degree consists of a minimum of 48 hours, including Hist 101-102-103, 211-212-213 (unless excused as the result of taking a placement test) and 24 hours at the 300-400 level. Beyond Hist 213 the following minimum hours are required: six hours in United States history, six hours in European history and six hours from the following fields — Ancient, Africa, Asia, Latin America and Middle East. Hist 101-102-103 should be taken during the freshman year and Hist 211-212-213 during the sophomore year. Unless otherwise stated, the prerequisite for 300-level courses is sophomore standing or above and the prerequisite for 400-level courses is junior or senior standing. Courses in economics, geography, government, statistics and sociology and anthropology are suggested as electives. Completion of these requirements fulfills the Arts and Sciences College requirements of at least nine hours in the major at the junior-senior level. No history course taken on a pass/fail basis may be applied toward filling requirements for the history major.

**101 Western Civilization in Modern Times (4)**

Renaissance to 1648: Renaissance, Reformation, origins of national state system, diplomacy and imperialism as applied to Portugal, Spain and Hapsburg Empire, and commercial and scientific revolutions. When possible, majors should take 101-102-103 in sequence. Nonmajors may elect 102 without taking 101; they may elect 103 without taking 101 or 102.

**102 Western Civilization in Modern Times (4)**

Continuation of 101. Covers 1648 to 1848: absolutism, constitutionalism, operation of coalition diplomacy and imperialism as applied to France and Britain; westernization of eastern Europe, enlightenment, French Revolution, agricultural, commercial and industrial revolutions and growth of ideologies—liberalism, socialism and nationalism. When possible, majors should take 101-102-103 in sequence. Nonmajors may elect 102 without taking 101; or 103 without taking 101 or 102.

**103 Western Civilization in Modern Times (4)**

Continuation of 101-102. Covers 1848 to present: continued industrial revolution and spread of liberalism, socialism and nationalism; rise and

fall of German bid for power in 2 world wars; new ideologies of materialism, positivism, Social Darwinism, irrationalism, totalitarianism; Russian and Chinese revolutions and international communism; rise and fall of western empires in Africa and Asia. When possible, majors should take 101-102-103 in sequence. Nonmajors may elect 102 without taking 101; they may elect 103 without taking 101 or 102.

**111 The Origins of Western Civilization (4)**

Birth of civilization in Near East, culture of Greece and Rome, coming of Christianity and medieval European states surveyed. Emphasis upon cultural contributions of these earlier societies to modern western civilization.

**211 American History to 1828 (4)**

Political, diplomatic, social and economic development of American history. Covers 1607 to 1828: colonial America, founding of the new nation and early national period. When possible, majors should take 211-212-213 in sequence. Nonmajors may elect 212 without taking 211; they may elect 213 without taking 211 or 212.

**212 History of the United States, 1828-1900 (4)**

Continuation of 211. Political, diplomatic, social and economic development of American history. Covers 1828 to 1900: Jacksonian democracy, territorial expansion, sectionalism and controversy, Civil War, reconstruction and impact of expanded Industrial Revolution. When possible, majors should take 211-212-213 in sequence. Nonmajors may elect 212 without taking 211; they may elect 213 without taking 211 or 212.

**213 History of the United States Since 1900 (4)**

Continuation of 211-212. Political, diplomatic, social and economic development of American history. Covers 1900 to present: progressive movement, WW I, prosperity and depression, WW II and problems of cold war era. When possible, majors should take 211-212-213 in sequence. Nonmajors may elect 212 without taking 211; they may elect 213 without taking 211 or 212.

**297T Honors Tutorial Seminar, U.S. History (3-5)**

Prereq: admission to Honors Tutorial College. (fall) Covers U.S. history, 1607 to present.

**298T Honors Tutorial Study, U.S. History (1-5)**

Prereq: 297T. (winter) Independent study, U.S. history.

**299T Honors Tutorial Study, U.S. History (1-5)**

Prereq: 298T. (spring) Independent study, U.S. history.

**313 Jews in American History (4)**

*M. Fletcher.* Examines political, economic and religious interaction between Jews and American society. Includes Sephardic and Ashkenazic

immigrants, growth of Reform and Conservative Judaism, Zionism and modern problems of American Jews, from 1654 to present.

**315A History of the Black Man in America to 1860 (4)**

*M. Fletcher.* Beginning with introduction of slavery in 1619, course deals with black man's role in America to the beginning of the Civil War. Concerns slavery, abolition and the many attempts by the black people to improve their position.

**315B History of the Black Man in America Since 1860 (4)**

*M. Fletcher.* Concerns Emancipation and its continuing effects on the black man in America. Life in the South, migration to the North and conservative and radical attempts by the black community to deal with these problems.

**317A Ohio History to 1851 (4)**

Ohio to 1851; prehistoric Ohio; early exploration, settlement, government; statehood and economic development. Formation of political parties, anti-slavery movement, constitutional change. Biographical sketches.

**317B Ohio History Since 1851 (4)**

Ohio since 1851; pre-Civil War politics, Civil War. Economic and political transition during post-Civil War. 20th century problems. Biographical sketches.

**321A History of the Military in America: 1600 to 1898 (4)**

*M. Fletcher.* Military institution in American history; role of technology in warfare; innovations and reforms in the military; war and its conduct; military and civilian society in war and peace.

**321B History of the Military in America: 1898 to Present (4)**

*M. Fletcher.* Continuation of 321A. See 321A for description.

**323A Latin American Survey, Colonial Period (3)**

*J. Cunningham.* Pre-Columbian civilization; conquest and colonization; evolution of institutions; wars for independence.

**323B Latin American Survey, National Period (3)**

*J. Cunningham.* Demolition of colonial order and struggle for nationality in the 19th century; 20th century reform, revolution and development of modern nation states.

**325 Inter-American Relations (3)**

*J. Cunningham.* Diplomatic history of Latin America since independence; state-to-state relations within Latin America; relations with the United States, western Europe and communist

nations; participation in world wars and in international organization.

**329A Ancient History—Near Eastern Civilizations (4)**

*D. Richter.* Prehistoric eras, origins of Mediterranean civilizations, problems of ancient chronology, civilizations of Sumerians, Babylonians, Egyptians, Assyrians, Biblical Hebrews and Persians. Stresses archaeological and literary sources, comparative social and religious concepts, acculturation, contributions to western civilization.

**329B Ancient History—Hellenic Civilization (4)**

*D. Richter.* Aegean prehistory, Minoan civilization, Mycenaean Greeks, Dorian invasions, Greek Renaissance, growth of the polis. Athenian society and culture, Persian and Peloponnesian Wars, political history of Greece to Alexander. Stresses archaeological sources, mythology and drama, Hellenic contributions to western civilization.

**329C Ancient History—Roman Civilization (4)**

*D. Richter.* Early peoples of Italy, Etruscans, constitutional development of the Republic, growth of the empire, the civil wars, history of the principate to Constantine. Stresses archaeological sources, Latin literature, Roman life and institutions, Roman contributions to western civilization.

**335A Survey of Middle East History to 1800 (4)**

*G. Doxsee.* Islamic history and civilization from rise of Islam to end of 18th century. Includes discussion of role of prophet Muhammad, doctrines and institutional system of Islam, medieval Islamic caliphates and their cultural achievements and contributions of Persians and Turks to Islamic civilization.

**335B Survey of Middle East History Since 1800 (4)**

*G. Doxsee.* History of Middle East since era of the French Revolution. Disintegration of the Ottoman Empire, emergence of the contemporary Middle East political system, impact of nationalism, secularism and industrialism on the region, and position of the Middle East in contemporary world affairs.

**341A Africa to the 17th Century (4)**

*S. Miers.* Africa in the ancient world; spread of agriculture and iron working; rise of Islam; migrations of peoples; development of states; arrival of the Europeans.

**341B Africa from the 17th to the late 19th Century (4)**

*S. Miers.* Africa in the 17th century; slave trade; religious revolutions in the western Sudan; development of African states; commercial revolution of the 19th century; birth of a plural society in South Africa; European partition of Africa.

**341C Africa from the Late 19th Century to the Present Day (4)**

*S. Miers.* Establishment of European rule in Africa; colonial period; rise of nationalism; decolonization and independence; problems of modern Africa.

**345A Southeast Asia to c. 1750: The Creative Synthesis (4)**

*W. Frederick.* Highlights of pre- and proto-history and development of classical states. Emphasis on cultural synthesis (Hindu, Buddhist, Muslim and animist influences) and theme of change and continuity in both the Great and Little traditions of region.

**345B Southeast Asia, c. 1750 to 1942: Change and Conflict (4)**

*W. Frederick.* Indigenous change and widening effects of western penetration, with emphasis on social and cultural developments. Nature of colonialism in region, and response of colonized seen in light of both traditional and modern influences.

**345C Southeast Asia, 1942 to the Present: The Search for Stability (4)**

*W. Frederick.* Japanese occupation and its relationship to great national revolutions of 1940s. Social and cultural contents of nationalism and revolt, search for new political forms and struggle against disunity and poverty.

**346A Traditional China (4)**

*D. Jordan.* Growth and interaction of principal political, social and economic institutions of China from prehistoric times through decline of Imperial system in the 1880s.

**346B Modern China (4)**

*D. Jordan.* Weakness of the empire in the 1880s confronted by dynamic western economic and political imperialism; response to pressures of nationalism from without and from within; great flux in modern Chinese society and politics.

**348A Traditional Japan (4)**

*D. Jordan.* Development of Japan's early civilization, including indigenous elements and those derived from Korea and China. Political development of Japan leading to its position *vis-a-vis* the western nations in the 19th century.

**348B Modern Japan (4)**

*D. Jordan.* Political weakness of Tokugawa system leading to opening of Japan to western trade and restoration of the emperor; favorable economic and political base which allowed Japan to enter successfully into competition with European nations; Japan's ultra-national era and postwar reconstruction.

**350 The Civilization of India (4)**

*D. Jordan.* Environmental and spiritual influences

on Indian civilization; Hindu and Muslim lifestyles; successive influxes of foreign peoples and cultures; evolution of Indian traditions, Indian literature and readings on Indian culture set in a historical framework.

**353A The Early Middle Ages (4)**

*C. Reeves.* Birth of the Middle Ages, 300-1100: collapse of ancient civilization, triumph of Christianity, coming of dark ages and revival of Europe in 11th century.

**353B The Later Middle Ages (4)**

*C. Reeves.* Maturity and decadence of medieval world, 1100-1450: revival of trade, royal governments, Papal power, schools and learning in 12th and 13th centuries and collapse of this civilization in 14th and 15th centuries.

**391A English History to 1688 (4)**

*R. Rauschenberg.* For English and government majors as well as pre-law students and general students of history. Stresses institutional aspects of medieval England and social, political and constitutional developments in the Tudor and Stuart periods.

**391B English History Since 1688 (4)**

*R. Rauschenberg.* For English and government majors as well as pre-law students and general students of history. Emphasizes cultural and economic developments, growth of the British Empire, constitutional and social reforms and the impact of WW I and WW II.

**397T Honors Tutorial Study, European History (1-5)**

Prereq: admission to Honors Tutorial College. (fall) Covers European history from Renaissance to present.

**398T Honors Tutorial Study, European History (1-5)**

Prereq: 397T. (winter) Independent study, European history.

**399T Honors Tutorial Study, European History (1-5)**

Prereq: 398T. (spring) Independent study, European history.

**400A Colonial America to 1689 (4)**

*B. Steiner.* English background, establishment of settlements, first economics, evolution of political and religious structures, relations with England, internal conflicts, Glorious Revolution.

**400B Colonial America, 1689-1763 (4)**

*B. Steiner.* Governmental changes, credit and currency, Great Awakening, cultural developments, old colonial system, Anglo-French rivalry, nature of colonial society, problems of maturing political units.

**400C Revolutionary Era, 1763-1789 (4)**

*B. Steiner.* Causes of American Revolution and struggle for independence. Confederation, movement for new government, framing of Constitution and establishment of Washington's first administration.

**401A Studies in Colonial American History (4)**

Prereq: 24 hrs and perm. *B. Steiner.* Literature and source materials of colonial American history. Readings and reports.

**401B Studies of the Era of the American Revolution (4)**

Prereq: 24 hrs and perm. *H. Stevens.* Literature and source materials of American Revolution. Readings and reports.

**404 Founding the American Republic: 1789-1815 (4)**

*H. Stevens.* Shaping America's political, social and economic institutions, constitutional development and foreign policy from Federalists (Washington and Adams) through Jeffersonians.

**404C The Old South (4)**

Origins and growth of distinctive social, cultural and ideological patterns in the South with emphasis on 19th century prior to Civil War.

**405 Studies in the Foundation of the American Republic, 1783-1819 (4)**

Prereq: 24 hrs and perm. Literature and source materials of early national period of American history. Readings and reports.

**406A Sectional Controversy: 1815-1836 (4)**

*H. Stevens.* Conflicts of aristocratic and democratic (Jacksonian) elements in society, economy and government; problems of sectionalism, slavery and minorities.

**406B Sectional Controversy: 1836-1850 (4)**

*H. Stevens.* Sectional tensions evolving from political controversy, economic conditions, slavery, territorial expansion and attempts to compose differences from 1836 to 1850.

**407 Studies of the Era of Sectional Controversy: 1819-1850 (4)**

Prereq: 24 hrs and perm. *H. Stevens.* Literature and source materials of the era of sectional controversy, 1819-1850. Readings and reports.

**408A Foundations of Modern America: The Civil War Era, 1850-1865 (4)**

Intensive examination of period from 1850 to conclusion of Civil War in 1865, with special reference to those forces making for increased sectionalism in 1850s; rise of new political movements and leaders; military engagements; society and institutions in both the North and the Confederacy during wartime.

**408B Foundations of Modern America: Reconstruction and the New South after 1865 (4)**

United States in yrs following Civil War; administrations of Andrew Johnson and Ulysses S. Grant, with special reference to reconstruction policies for the South and restoration of home rule in that region. Carries account of southern regional development to end of 19th century.

**408C Foundations of Modern America: The Gilded Age, 1877-1901 (4)**

United States in late 19th century, with emphasis on roles of agrarian, labor and reform movements in an increasing industrial and urban society. Special note taken of role of political parties in Gilded Age.

**409 Studies in the Era of the Foundations of Modern America, 1850-1901 (4)**

Prereq: 24 hrs and perm. Literature and source materials for period 1850-1901 in United States history. Readings and reports.

**410A The United States in Recent Times, 1900-1920 (4)**

*A. Hamby, G. Lobdell.* Progressive era, American imperialism, WW I, rejection of Wilsonian liberalism.

**410B The United States in Recent Times, 1920-1939 (4)**

*A. Hamby, G. Lobdell.* Temper and culture of the 20s, Republican ascendancy and Democratic revival, Great Depression, F. D. Roosevelt and New Deal.

**410C The United States in Recent Times, Since 1939 (4)**

*A. Hamby, G. Lobdell.* Abandonment of isolation, WW II, American politics in later Roosevelt years, cold war, Truman and Fair Deal, politics and problems of the 50s and 60s.

**411 Studies in the History of the United States in Recent Times (4)**

Prereq: 24 hrs and perm. *A. Hamby, G. Lobdell.* Literature and source materials of recent United States history. Readings and reports.

**412 History of the Industrial Revolution in the United States, 1850-1917 (4)**

*R. Daniel.* Origins of factory system, impact of Civil War, rise of heavy industry, problems of financing and control, influence of progressive era.

**414A Social and Cultural History of the United States, 1607-1820 (4)**

*R. Daniel.* Role of minorities, class structure and religion in forming American society; development of American painting, architecture, music, literature, education and science as expressions of Puritanism, enlightenment and nationalism.

#### 414B Social and Cultural History of the United States, 1820-1890 (4)

*R. Daniel.* Role of minorities, class structure and religion in forming American society; development of American painting, architecture, music, literature, education and science as expressions of romanticism, Social Darwinism and pragmatism.

#### 414C Social and Cultural History of the United States, 1890 to Date (4)

*R. Daniel.* Role of minorities, class structure and religion in forming American society; development of American painting, architecture, music, literature, education and science as expressions of pragmatism and existentialism.

#### 414D American Social Thought to 1815 (4)

Major aspects of intellectual history of American colonies and United States to 1815, organized around 2 major themes: Puritanism, and secularization of American thought in 18th century.

#### 414E American Social Thought, 1815-1890 (4)

Major aspects of intellectual history of United States, 1815-1890, stressing rise of romantic nationalism; triumph of democratic attitude; slavery controversy; impact of Civil War and Darwinian evolution.

#### 414F American Social Thought, 1890 to the Present (4)

Major aspects of intellectual history of United States since 1890, with principal attention to continuing impact of evolutionary naturalism, especially in development of pragmatism; trends in liberal and conservative political ideologies; rise of pessimistic theology and its ramifications; modernism in the arts; New Radicalism and Counter Culture.

#### 415 Studies in the Social, Cultural and Intellectual History of the United States (4)

Prereq: 24 hrs and perm. *R. Daniel, C. Alexander.* Literature and source materials of social, cultural or intellectual history of United States. Readings and reports. Topic varies.

#### 416A History of United States Foreign Relations to 1898 (4)

*J. Gaddis.* United States foreign relations from war for independence to Spanish-American War, stressing development of traditional policies— isolationism, neutrality, Monroe Doctrine—and emergence of an American approach to foreign policy.

#### 416B History of United States Foreign Relations, 1898-1939 (4)

*J. Gaddis.* American foreign relations from war with Spain to outbreak of WW II, emphasizing attempts to adjust traditional policies and attitudes to new conditions produced by changes in world power structure and rise of United States as a great power.

#### 416C History of United States Foreign Relations Since 1939 (4)

*J. Gaddis.* WW II and revolution in American foreign relations, cold war and containment, search for peace and security in a revolutionary era.

#### 417 Studies in the History of American Foreign Relations (4)

Prereq: 24 hrs and perm. *J. Gaddis.* Literature and source materials of American foreign relations. Readings and reports.

#### 418A The Westward Movement: from the Atlantic Seaboard to the Mississippi (4)

*H. Stevens.* Expansion from first settlements of Atlantic seaboard to the Mississippi. Explorations, Indian trade, land policies, slavery, pioneer life, territorial development and state making.

#### 418B The Westward Movement: Trans-Mississippi West (4)

*H. Stevens.* Territorial acquisitions, trails and exploration, Indian affairs, slavery, railroads, types of later frontiers and influence of the West upon American ideals and institutions.

#### 420 History of the Middle West (4)

*H. Stevens.* Development of political, economic and social institutions and attitudes characteristic of Ohio and the Middle West since 1787. Includes 20th century community relationships, problems and forms of behavior.

#### 421 Studies in Regional History (4)

Prereq: 24 hrs and perm. *H. Stevens.* Literature and source materials of United States regional history. Readings and reports.

#### 422 Latin America in the 19th Century (4)

*J. Cunningham.* Causes of wars for independence; institutional adjustments during and after wars; problems of regionalism and caudillism; influence of liberalism and positivism in shaping Latin American republics.

#### 423 Studies in Latin American History, 1750-1880 (4)

Prereq: perm. *J. Cunningham.* Literature and source material of Latin American history, 1750-1880. Readings and reports.

#### 426A Recent Latin America: Argentina, Brazil and Mexico in the 20th Century (4)

*J. Cunningham.* Reshaping and modernization of Mexico by revolution, and struggle to convert Argentine and Brazilian regionalisms, divided societies and resources into modern urban, integrated nations.

#### 426B Recent Latin America: Andean Nations in the 20th Century (4)

*J. Cunningham.* Varied experience of the Andean republics under onset of modernization stressed.



**426C Recent Latin America: Central America and the Island Republics in the 20th Century (4)**

*J. Cunningham.* Search for national identity and modernization in area of special interest to United States. Consideration of alternative national solution with special attention to Castro revolution and its historical background.

**427 Studies in Recent Latin American History (4)**

Prereq: perm. *J. Cunningham.* Literature and source materials of recent Latin American history. Readings and reports.

**428 The World of Aristophanes (3)**

*D. Richter.* Political, social and cultural life of Athens in so-called Golden Age of ancient Greece, 5th century B.C. Special attention to Aristophanes' comedies as a mirror of this period.

**429 Studies in the History of Ancient Greece (4, max 8)**

Prereq: 24 hrs and perm. *D. Richter.* Literature and source material of ancient Greek civilization. Readings and research paper. Themes vary from qtr to qtr. May be repeated for credit.

**434 The Arab-Israeli Dispute (4)**

*G. Doxsee.* Analysis of underlying causes of Arab-Israeli confrontation from 1890s to present, including origins of Arab nationalism and Zionism, evolution of British Mandate in Palestine, Great Power involvement in the Middle East, and recent developments in conflict between Israel and the Arabs.

**435 Studies in Middle East History (4)**

Prereq: 24 hrs and perm. *G. Doxsee.* Literature and source materials on the Middle East since 1914. Readings and reports.

**436A North Africa in Modern Times (4)**

*G. Doxsee.* The Maghrib; its geography, ethnic composition and history since antiquity; French conquest of Algeria, Tunisia and Morocco; administrative systems; economic development; French-Muslim relations.

**436B North Africa Since 1914 (4)**

*G. Doxsee.* Rise of nationalism; struggle for political independence; political, economic and social problems in independent North Africa.

**438A History of East Africa (4)**

*S. Miers.* History of East Africa from early times to present, with particular emphasis on period since 1750. Although neighboring countries also studied, greatest attention paid to region which comprises present day Kenya, Uganda and Tanzania.

**438B History of West Africa (4)**

*A. Booth.* History of West Africa from early times to present; peopling of sudanic and forest regions;

development of trade; Islam and rise of sudanic empires; slave trade and forest states; colonial era; independence movements; problems of nationalism.

**441 Studies in African History (4)**

Prereq: 24 hrs and perm. *A. Booth, G. Doxsee, S. Miers.* Literature and source materials of African history. Readings and reports.

**442A History of South Africa to 1899 (4)**

*A. Booth.* Ancient man; Bantu migrations; coming of Europeans; conflict between Bantu, Boer and Briton; rise of Zulus and Wars of Calamity; rise of colonial tensions and origins of Boer War.

**442B South Africa in Recent Times (4)**

*A. Booth.* Boer War; Union of South Africa; rise of parties and Age of the Generals; WW I; industrial and social conflict; WW II; election of 1948 and emergence of Afrikaner nationalism.

**444A History of Malaysia (4)**

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. Political and cultural history of Malaysian or Indonesian peoples from 8th century A.D. through mid-20th century. Emphasizes indigenous values and institutions and how these have been modified or displaced by experience with imperialism and modernization.

**444B Burma and Thailand in Modern Times (4)**

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with eastern Asia. Comparative study of neighboring Buddhist states, covering selected aspects of their history. Emphasizes political and cultural tradition, their interrelations, impact of colonial period and problems of postwar modernization.

**444C History of Vietnam (4)**

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with eastern Asia. Assesses heritage of 1000 yrs of Chinese rule and covers development of Vietnamese state from 10th to 19th century, missionary and French colonial impact and problems of independence since 1945.

**444D Chinese in Southeast Asia (4)**

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. *D. Jordan.* Historical role of this potent immigrant community in the setting of Southeast Asian countries. China's imperial interests in the area, tribute system, relationships between overseas Chinese, European colonialists and indigenous peoples and role of Chinese communities in contemporary Southeast Asian politics.

**445 Studies in the History of Southeast Asia (4)**

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. Literature of Southeast Asian history and culture gen-

erally, with particular emphasis on selected developments in the 19th and 20th centuries. Readings and reports.

#### 449 Studies in the History of East Asia in Modern Times (4)

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. *D. Jordan*. Historical literature relating to process of modernization of China and Japan from 1860s to 1960s. Readings and reports.

#### 451 Medieval People (4)

*C. Reeves*. Inquiries in depth into lives and epochs of representative individuals of medieval Europe: the Middle Ages through biography.

#### 452 Medieval Civilization (4)

*C. Reeves*. Transmission of Christianity and classical culture to the barbarians and their work of combining the 2 into a new civilization in the early Middle Ages. Medieval civilization at its height: the Church, the schools and scholastic thought and secular culture.

#### 456A The Italian Renaissance (4)

*P. Bebb*. Major political, social, economic and cultural currents of Italian city-states from 1150 to 1550. Focus on Dante, Petrarch, Boccaccio, Bruni, Machiavelli, Guicciardini, Michelangelo, Leonardo da Vinci, etc.

#### 456B The Northern Renaissance (4)

*P. Bebb*. History of the Renaissance outside Italy: politics, economics, sociology and intellectual currents of Germany, France, Spain, Burgundy and England from 1300 to 1600. Treated thematically, course focuses on Erasmus, More, Ximenes, Reuchlin, Hutten, Bude, etc.

#### 456C The Reformation (4)

*P. Bebb*. Protestant, Catholic and Counter-Reformations in Europe, showing their relationships to social, political, economic and religious movements of 15th and 16th centuries. Roles of Luther, Zwingli, Calvin, Cranmer, Erasmus, Loyola, etc.; Protestant and Catholic churches and sects in western and eastern Europe.

#### 458A Early Modern Europe, 1559-1648 (4)

*D. Baxter*. Europe from 1559 to 1648. Main political, economic and cultural developments in Europe during Age of Spanish Preponderance: Philip II, wars of religion, Richelieu, Thirty Years' War and ideological struggles.

#### 458B Early Modern Europe, 1648-1715 (4)

*D. Baxter*. Europe from 1648 to 1715. Main political, economic and cultural developments in Europe during Age of Louis XIV: French hegemony, rise of balance of power, absolutism, intellectual revolution and Pre-Enlightenment.

#### 458C Early Modern Europe, 1715-1774 (4)

*D. Baxter*. Europe from 1715-1774. Main political,

economic and cultural developments in Europe during Age of Louis XV: despotism, diplomatic revolution, competition for empire, science and learning.

#### 461 Proseminar in French Revolution (4)

Prereq: 24 hrs and perm. *C. Gustavson*. Intensive study of such historical factors as causality, influence of ideology, institutional organization and role of individual in a great upheaval.

#### 462A Europe, 1814-1871 (4)

Prereq: 102 and 103. *L. McGeoch*. Europe from Congress of Vienna through Franco-Prussian War, including growth of liberalism and nationalism, revolutions of 1830 and 1848, Industrial Revolution, unification of Italy and Germany, social and intellectual movements.

#### 462B Europe, 1871-1914 (4)

Prereq: 103. *L. McGeoch*. Development of Austria-Hungary, France, Italy, Germany, Great Britain and Russia, including imperialism, background of WW I and social and intellectual movements.

#### 463 Studies in 19th Century Europe (4)

Prereq: 24 hrs and perm. *L. McGeoch*. Literature and source material of 19th century Europe. Readings and reports.

#### 464A Europe Between World Wars (3)

*R. Whealey*. Fascism, Communism, World Depression and Twenty-Year Armistice between 1919 and 1939.

#### 464B Contemporary Europe (4)

*C. Gustavson*. Cold War in Europe, Communist bloc, movement toward European integration, Gaullist regime and major developments on national level.

#### 466A Modern France in the 19th Century (4)

*J. Chastain*. Evolution of France as a monarchy, empire and republic.

#### 466B Modern France in the 20th Century (4)

*J. Chastain*. France under 3 republics.

#### 467 Studies in Modern France (4)

Prereq: 24 hrs and perm. *J. Chastain*. Literature and source material of modern France. Readings and reports.

#### 468A Modern Germany in the 19th Century (4)

*J. Chastain, C. Gustavson*. Germany and central Europe from Age of Napoleon to fall of Bismarck.

#### 468B Modern Germany in the 20th Century (4)

*J. Chastain*. Germany and central Europe since advent of Wilhelm II.

#### 470 History of Byzantine Empire, 324-1453 (4)

*W. Kaldis*. Decay of the Roman World and emergence of a Christian empire, 324-717; medieval

Roman Empire, 717-1056; weakening of central administration and apparent revival under the Comneni, 1025-1204; Byzantium and the neighboring world, 1204-1453; church and state; education and learning; Byzantine art; social, political and military developments.

**472A Balkans in Early Modern Period, 1453-1804 (4)**

*W. Kaldis.* Ethnographic structure of Balkan peoples under rule of Ottoman Empire. Ottoman institutions and society; political, social; economic, religious and cultural developments in the Balkans in 15th, 16th, 17th and 18th centuries.

**472B Balkans in 19th Century, 1804-1878 (4)**

*W. Kaldis.* Evolution of modern Balkan nationalism and rise of Balkan states. Ottoman dissolution and Balkan revolutionary nationalism; political, social, economic, religious and intellectual developments; domestic Balkan policy and foreign intervention.

**472C Balkans in 20th Century, 1878 to Present (4)**

*W. Kaldis.* Historical, cultural and ethnic background of Balkan peoples. Social, economic, political and intellectual developments in the Balkans; communization of southeast European states.

**474A History of European Diplomacy, 1814-1914 (4)**

Prereq: 102 and 103. *L. McGeoch.* Diplomatic history from Congress of Vienna to WW I, including age of Metternich. Italian and German unification, new imperialism and prewar alliance and alignments.

**474B History of International Diplomacy, 1914-1939 (3)**

*R. Whealey.* International problems of peace and war, international organization and alliances.

**474C History of International Diplomacy, 1939 to Present (3)**

*R. Whealey.* International problems of peace and war on a world-wide scale since 1939, international organization and alliances, adjustment to collapse of European imperialism.

**476 Men and Power, 1814-1914 (4)**

*L. McGeoch.* History of power politics in 19th century Europe through study of biographies of European sovereigns, statesmen and diplomats.

**478A European Social and Intellectual History to 1850 (4)**

Prereq: 102. Intellectual currents of the Enlightenment and transition to the Romantic movement.

**478B European Social and Intellectual History, 1850-1914 (4)**

Prereq: 103. Evolution of middle class views

with emphasis on liberalism, nationalism, racism and imperialism; impact of Darwinism; rise of Positivism; development of International Socialism, Neo-romanticism and revolt against Positivism.

**478C European Social and Intellectual History, Since 1914 (4)**

Prereq: 103. Crisis in liberalism and impact of Bolshevik Revolution; discoveries in realm of the subconscious; ideas of international communism, national socialism and fascism; existential crisis.

**479 The Development of Modern Science (4)**

*R. Rauschenberg.* Survey of development of science from the Renaissance. History of physical and natural sciences in ages of Copernicus, Newton, Linnaeus and Darwin.

**482A History of Russia (3)**

*C. Gustavson.* Russia from earliest times to 1881. Kievan Russia, Muscovy, emergence of tsarist Russia, territorial expansion and role as a great power in Europe and Asia.

**482B The Communist Revolution (3)**

*C. Gustavson.* From tsarist Russia to Soviet Union, 1881-1924; background for the revolution, Bolshevik seizure of power and consolidation of dictatorship.

**482C Soviet Union (3)**

Prereq: 482B or perm. *C. Gustavson.* Soviet Union since death of Lenin (1924) with emphasis on internal affairs of Communist regime.

**483 Studies in Russian and Soviet History (4)**

Prereq: 24 hrs and perm. *C. Gustavson.* Literature and source material of Russian and Soviet history. Readings and reports.

**489 Later Medieval England, 1307-1485 (4)**

*C. Reeves.* Investigation of political, social, intellectual, ecclesiastical and economic aspects of a period of ferment and rapid change.

**490A Tudor England (4)**

*R. Harvey.* England in the 16th century: Tudor absolutism, English Reformation and major cultural and economic developments of Shakespeare's England.

**490B Stuart England (4)**

*R. Harvey.* England in 17th century: constitutional crisis of Stuart period, Republican experiment under Cromwell and major cultural and economic developments.

**491 Studies in Early Modern English History (4)**

Prereq: 24 hrs plus perm. *R. Harvey.* Studies in early modern English history from multi-disciplinary perspectives.

**492A The United Kingdom in the 18th Century (4)**

*R. Rauschenberg.* Intensive study of political, social, intellectual, cultural and economic developments of England in years prior to and during American and French revolutions.

**492B The United Kingdom in the 19th Century (4)**

*R. Rauschenberg, D. Richter.* Intensive study of Britain's history in the 19th century including examination of major political, cultural and economic trends.

**492C The United Kingdom in the 20th Century (4)**

*R. Rauschenberg.* Intensive study of British history in 20th century concentrating on political, cultural and economic developments.

**493 Studies in British History Since 1714 (4)**

Prereq: 24 hrs and perm. *R. Rauschenberg.* Literature and source material of British history since 1714. Readings and reports.

**494A The Medieval English Constitution (4)**

*C. Reeves.* English government from Anglo-Saxon times to end of Middle Ages. Growth of machinery of monarchy, central administration, courts and common law. Rise of Parliament.

**494B The Modern English Constitution (4)**

*R. Harvey.* Emergence of modern English constitution during 16th and 17th centuries; creation and growth of Tudor Constitution; significance of English Reformation for constitution; Tudor Parliament: "Century of Revolution" (1603-1689) and crisis of Constitution; problems of sovereignty and obligation; constitution today.

**496A The British Empire-Commonwealth: Georgian Era (4)**

Comparative study of political and economic development of Commonwealth countries from 18th century to Age of Reform.

**496B The British Empire-Commonwealth: Victorian Era (4)**

Comparative study of political and economic development of Commonwealth countries from Age of Reform to WW I.

**496C The British Empire-Commonwealth: the 20th Century (4)**

Comparative study of political and economic development of Commonwealth countries since WW I.

**497T Advanced Honors Tutorial Study (1-5)**

Prereq: 299T, 399T. (fall) Independent study, advanced level.

**498 Problems in History (1-5, max 9)**

Prereq: 24 hrs, perm. Intensive individual work either in research or individual systematic read-

ing along lines of student's special interest and under supervision of staff member.

**498T Advanced Honors Tutorial Study (1-5)**

Prereq: 497T. (winter) Independent study, advanced level.

**499 Honors Studies of Selected Historical Topics (1-5, max 15)**

Prereq: perm. Study, reading, research and writing on a selected topic; intended for students who plan to graduate with honors in history. Arrangements should be made during jr yr.

**499T Advanced Honors Tutorial Study (1-5)**

Prereq: 498T. (spring) Independent study, advanced level.

## HOME ECONOMICS

### General Home Economics

#### Consumer Service and Education Consumer Service Education

#### Human Development and Family Ecology

#### Human Environment and Design Furnishings and Design Textiles and Clothing

#### Human Nutrition and Food Science

#### Home Economics Programs for International Students

## GENERAL HOME ECONOMICS

### 101 Orientation in Home Economics (2)

*S. Slater.* Home economics with emphasis on career opportunities in various areas. Specialists in each field assist staff.

### 319 Home Nursing and Family Health (2)

Simple procedures in care of the sick and minor accidents in the home. Disease prevention and health promotion for family.

### 399A Field Work in Home Economics (2-5)

Prereq: 18 hrs, sr rank. (summer) On-the-job training through cooperation with business organizations, department stores, hospitals, radio-television stations, Home Economics Extension

Department of Ohio State University and the Merrill-Palmer Institute. Each section may be taken only once. 399A — home economics extension.

#### **399B Field Work in Home Economics (2-5)**

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399B—home service work with public utilities.

#### **399C Field Work in Home Economics (2-5)**

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399C—food service management.

#### **399D Field Work in Home Economics (2-5)**

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399D — retail merchandising.

#### **399E Field Work in Home Economics (2-5)**

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399E—radio-television.

#### **399F Field Work in Home Economics (2-5)**

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399F—child and family development.

#### **479A Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Special workshops for in-service training of home economics teachers. Each section may be taken only once. 479A—home economics education.

#### **479B Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479B—clothing and textiles.

#### **479C Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479C—foods and nutrition.

#### **479D Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479D — child development.

#### **479E Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479E—consumer economics.

#### **479F Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479F — home furnishings.

#### **479G Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479G — home management.

#### **479H Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479H—household equipment.

#### **479I Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479I—school lunch management.

#### **479J Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479J—family life education.

#### **491A Seminar in Home Economics (2-4)**

Prereq: perm of dept chairman. Recent developments in any of the following areas. Each section may be taken only once. 491A—child development and family life.

#### **491B Seminar in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491B—foods and nutrition.

#### **491C Seminar in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491C—home economics education.

#### **491D Seminar in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491D—Housing and management.

#### **491E Seminar in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491E—textiles and clothing.

#### **491F Seminar in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491F—research.

## CONSUMER SERVICE AND EDUCATION

### Consumer Service

#### **390 Family Consumer Economics (3)**

*R. Macauley.* Management of personal and fam-

ity financial problems. Retailing activities as they affect role of consumer. 3 lec.

### 391 Household Equipment (4)

Prereq: 122, 390. (fall, spring) *R. Macauley*. Selection and use of household equipment including materials, construction, operation and care. 4 lec, 2 lab.

### 395 Home Management (3)

Prereq: 9 hrs psychology, sociology and/or economics, jr rank. *P. Darnell*. Decision-making applied to use of family resources with purpose of creating a family environment in which optimum human development will occur. 3 lec.

### 396 Home Management Laboratory (4)

Prereq: 395 or with 395, perm. *P. Darnell*. Principles of decision-making and management in a group living situation. Home Management House experience provided.

### 439 Studies in Household Equipment and/or Management (2-4, max 6)

Prereq: 391, 395. Provides opportunity for student to pursue study in a selected area of home management and/or household equipment, under supervision.

### 492 Household Equipment Techniques (3)

Prereq: 391. *R. Macauley*. Critical analysis of home equipment relative to durability and effective use. 1 lec, 4 lab.

## Education

### 340 Teaching of Home Economics (3)

Prereq: jr rank. *S. Slater*. Home economics programs at jr and sr high school level. Special emphasis given to vocational education, curriculum development and evaluation procedures.

### 341 Demonstration Techniques (3)

Prereq: 18 hrs. *M. Lewis*. Practical experience in demonstration of foods, equipment or clothing. Planned for those in secondary education or consumer service. 1 lec, 4 lab.

### 440 Seminar in Home Economics Education (3)

Prereq: 24 hrs of home economics and 9 hrs of education. *B. Sellers, S. Slater*. Emphasis given to classroom management, professional responsibilities and specific techniques used for teaching job-training programs.

### 441 Methods in Home Economics Extension (3)

Prereq: 24 hrs of home economics and 9 hrs of education. (summer) *E. Langford*. History and philosophy of home economics extension: principles and procedures of instruction; organization and evaluation of programs.

### 442 Home Economics Education Practicum (2-4, max 8)

Prereq: sr rank. *S. Slater*. Concentrated study in

an area of interest such as adult programs, special education programs, job training experience; work with handicapped people.

### 443 Vocational Home Economics (4)

Prereq: 340 or teaching experience in home economics. (summer) *B. Sellers, S. Slater*. History and philosophy of vocational homemaking education. Contemporary trends, methods, sources of materials and evaluation. Observation arranged.

### 444 Home Economics in Adult Education (4)

Prereq: 26 hrs. (winter, summer) *B. Sellers*. Organization procedures, curriculum materials and methods of conducting adult education groups in field of education for family living.

### 445 Current Developments in Home Economics Education (4)

Prereq: 340 or 443. (summer) *B. Sellers*. Current trends and developments in home economics education programs at secondary and post high school levels in relation to curricular developments, evaluation procedures, legislation affecting program and research.

### 450 Problems in Teaching Home Economics (2-4, max 6)

Prereq: 26 hrs and EdPl 463, 464. *B. Sellers, S. Slater*. Individual problems in teaching.

## HUMAN DEVELOPMENT AND FAMILY ECOLOGY

### 160 Introduction to Child Development (4)

*J. Harlan, A. Lockard*. Fundamental patterns of development and behavior during prenatal period through adolescence. Directed observations of children in nursery school setting by closed circuit television, infants in infant lab and youth in selected adult-child community activities. 4 lec, 1 lab. No credit awarded if EdEl 200 or Psy 173 have been taken.

### 270 Family Living (3)

*E. Stricklin*. Person-centered analysis of basic human relationship processes leading to a successful modern American marriage and family experience. Special discussion and analysis of problems in the beginning family stage. Not open to fr. 3 lec.

### 360 Human Sexuality (3)

*E. Stricklin*. Exploration of effect of one's own human sexuality on aspects of one's ability to form relationships which are integrative, creative and recreative. Emphasis is placed on realization of one's own dynamic potential in wholeness of his life pattern and in his relationships, in the light of scientific research.

**361 Principles of Preschool Guidance (4)**

Prereq: 160 or equiv, perm. *J. Nehls*. Application of theories and principles of preschool guidance by directed observation of adult-child interactions, and supervised participation in nursery school. 2 lec, 3 lab.

**363 Creative Experiences with Preschool Children (4)**

Prereq: 361, perm. (fall, winter) *A. Lockard, J. Nehls*. Evaluation of materials and activities for use in directing and stimulating creativity in children by means of supervised observation and planned experience in nursery school and/or other preschool settings. 3 lec, 3 lab.

**371 Family Development (3)**

Prereq: 5 hrs general psychology. *E. Stricklin*. Modern family and its relationships beginning at marriage and continuing through subsequent phases of family life cycle. 3 lec.

**462 Readings in Child Development and/or Family Living (3-6, max 6)**

Prereq: 160 or equiv, 15 hrs sociology and/or psychology. Basic research, theory writings, current controversies and trends relevant to growth and behavior of children and in family living. Experience in abstracting materials from current sources. 2-4 lec.

**463 Preschool Administration (5)**

Prereq: 363. (spring) *J. Nehls*. History, philosophy and objectives of preschool education including current trends. Problems in organizing and administering preschools, play groups and Head Start programs with emphasis on housing, staff, schedules and financing. Field trips to selected programs. 4 lec.

**464 Nursery School Practicum (6)**

Prereq: 363, perm. *J. Nehls*. Lab experience in planning, guiding, supervising and evaluating preschool children's growth and behavior in all phases of a nursery school program. 1 lec, 20 lab.

**470 Family Living (3)**

*E. Stricklin*. Person-centered analysis of basic human relationship processes leading to successful modern American marriage and family experience. Special discussion and analysis of problems in the beginning family stage. No credit for those who have had 270. 3 lec.

**471 Family Life Education (4)**

Prereq: perm. (winter, summer) *E. Stricklin*. History, philosophy and objectives of family life education, including current trends. Selected fundamental educational problems explored. Examination of various dimensions of teacher's role and critical appraisal of student's professional competency to teach classes in family life education.

**HUMAN ENVIRONMENT AND DESIGN****Furnishings and Design****180 Furnishing Today's Home (3)**

*E. Langford, J. Matthews*. Practical and esthetic study of home furnishings, including basic art qualities, studies in color and design, materials used in furnishings, selection and arrangement of furniture and accessories.

**384 Family Housing (3)**

Prereq: 180 and art or design. (fall, winter) *E. Langford*. Housing needs of family and factors influencing housing. Evaluation and designing of floor plans for effective use of space in home.

**385 Home Furnishings Workshop (4)**

Prereq: 112, 180 or 6 hrs art, perm. *E. Langford*. Lab problems in advanced techniques in home furnishings, including upholstering, slipcovering, refinishing furniture.

**480 Advanced Home Furnishings (3)**

Prereq: 180 and art or design, perm. (fall) *E. Langford*. Qualities and styles of furniture and furnishings. Emphasis on periods of the past and their esthetic influence on the present. Practical projects in decorating and furnishing a home.

**481 Contemporary Design in Furnishings (3)**

Prereq: 480, 6 hrs of art or perm. (spring) *E. Langford*. Furnishings and interiors of present era; factors that have influenced development of contemporary design; important designers and their work.

**482 Design in Home Accessories (3)**

Prereq: 480, 6 hrs of art or perm. (winter) *J. Matthews*. Esthetic development of design in accessories of glass, ceramics, textiles, Oriental rugs, metals such as silver and pewter. Use of accessories in home and in displays.

**Textiles and Clothing****110 Theory of Clothing Construction (2)**

*E. Goldsberry*. Scientific principles as applied to understanding and use of commercial pattern, to pattern alterations and to cutting and layout problems. 2 lec, labs as assigned.

**112 Principles of Clothing Construction (3)**

Prereq: 110. *M. Graham*. Fundamental principles of clothing construction to individual projects. Emphasis on scientific thought, creative expression and construction techniques. 1 lec, 5 lab.

**308 Advanced Clothing Construction (4)**

Prereq: 112, 315. *E. Goldsberry*. Advanced problems and techniques of clothing construction.

Creative expression through selection of individual projects. 2 lec, 4 lab.

**312 Studies in Clothing and Textiles (2-4, max 8)**

Prereq: perm. Selected topic in clothing and textiles.

**314 Fashion Merchandising (4)**

Prereq: 112, 315, Jour 250. (fall) *E. Goldsberry*. Factors which influence merchandising of fashion goods. Process involved in planning, promoting, controlling, buying and selling fashion merchandise. 4 lec.

**315 Elementary Textiles (4)**

*M. Doxsee, M. Graham*. Emphasis on textile yarns, fabrics and finishes with reference to production, processing use and care. 4 lec, 1 lab.

**317 Textiles and Dress in Modern Living (3)**

Prereq: Psy 101 or Soc 101. *M. Doxsee*. Contemporary uses and roles of textiles and clothing as affected by economics, social and psychological forces seen in historic perspective.

**402 Flat Pattern (4)**

Prereq: 112 and 315. *E. Goldsberry*. Flat pattern designing with emphasis on fitting techniques and use and understanding of commercial patterns. 2 lec, 4 lab.

**405 History of Costume and Textiles (3)**

Prereq: 112 and 315. (fall) *M. Doxsee, M. Graham*. Costume and textiles through the ages as reflection of historical period and source for present day design.

**407 Textile and Fashion Industry (5)**

Prereq: 315 and Jour 250. (spring) *M. Doxsee*. Economic factors influencing textile and fashion industry treated in depth. 5 lec.

**419 Advanced Textiles (5)**

Prereq: 315. Chem 121. perm. (winter) *M. Doxsee*. Standard textile testing procedures and research methods. Student conducts individual research problem in lab.

## HUMAN NUTRITION AND FOOD SCIENCE

**122 Food Science and Principles (4)**

*M. Lewis, A. Wade*. Scientific principles applied to selection, storage and preparation of foods. 3 lec, 2 lab.

**128 Introduction to Nutrition (3)**

*B. Sullivan, A. Wade*. Relation of foods and nutrition to growth, development and maintenance of health. Development of good food habits for children and adults.

**320 Meal Management (3)**

Prereq: 122, 128. *M. Lewis, A. Wade*. Principles of food preparation and nutrition emphasizing use of time, energy and resources in management of meals. 2 lec, 3 lab.

**321 Creative Cookery and Food Styling (3)**

Prereq: 320, 3 hrs of psychology and 3 hrs of art. (fall) *M. Lewis*. Intensive study of elements of color, design, flavor and texture of food products and styles of cookery. 2 lec, 2 lab.

**422 Experimental Foods (4)**

Prereq: 122 or equiv and organic chemistry. (spring) *M. Lewis*. Factors which affect results obtained from food processes. Experimental work under controlled conditions. 2 lec, 3 lab.

**423 Comparative Studies in Foods (4)**

Prereq: microbiology and economics. (winter) *M. Lewis*. Food preservation, factors affecting palatability and nutritive value of foods, taste panels, preference surveys, elements of the food industry. 2 lec, 3 lab.

**425 Teaching of Foods and Nutrition (3)**

Prereq: sr rank and perm. (fall) *M. Lewis*. Organization of materials and methods of presenting principles of food preparation and nutrition. For majors in foods and nutrition. 1 lec, 4 lab.

**426 Cultural and Nutritional Aspects of Food (3)**

Prereq: 122, 128. (fall) *A. Wade*. Food patterns and practices of various cultural groups. Evaluation of these patterns in meeting dietary needs and factors contributing to these patterns.

**427 Studies in Foods and Nutrition (3-4, max 8)**

Prereq: perm. Directed studies in some aspect of foods and/or nutrition; topics selected by students with approval of staff member, frequent conferences.

**428 Advanced Nutrition (4)**

Prereq: 122, 128, organic chemistry and physiology. (fall) *B. Sullivan*. Nutrition and evaluation of current research as applied to dietary practices for all age groups. Computation of nutritive values of dietaries. 2 lec, 4 lab.

**429 Community Nutrition (3)**

Prereq: 128, psychology and sociology. (spring) *B. Sullivan*. Nutrition needs and practices in agencies serving community such as social welfare, home economics extension, public health and school lunch. Nutrition work with low-income families. Involves some field work. 2 lec, 2 lab.

**430 Diet Therapy (4)**

Prereq: 428, biochemistry. (winter) *B. Sullivan*. Principles of nutrition in feeding of individuals and use of diet in prevention and treatment of disease. Problems in planning and preparing therapeutic diets. 3 lec, 1 lab.



**431 Studies of Science of Nutrition (3-4, max 8)**  
Prereq: 428 and Zool 363. Nutrition as related to physiological and metabolic processes. Review and critical analysis of research in the field. 2 lec, 3 lab.

**432 Infant and Child Nutrition (3)**

Prereq: 128, 160 or equiv. (fall) Dietary factors related to nutritional status in pregnancy, infancy, preschool and school-age children. Contribution of nutrition education and school lunch program in school curriculum. 2 lec, 2 lab.

**434 Food Production and Service (4)**

Prereq: 122, 128. (fall) *R. Macauley*. Food preparation principles of quantity food production and service. Experience in residence halls. 2 lec, 4 lab.

**435 Purchasing and Cost Control (4)**

Prereq: 434, Acct 101, perm. (winter) *R. Macauley*. Production, distribution and storage of food supplies to serve as basis for purchase of such commodities for quantity use including cost control systems. 2 lec, 4 lab.

**436 Equipment Maintenance and Layout (4)**

Prereq: 434. (winter) *R. Macauley*. Food service layout and selection of equipment and furnishings, including materials, construction installation, operation, care and relative cost. 3 lec, 2 lab.

**437 Organization and Management (3)**

Prereq: 434. (spring) *R. Macauley*. Organization and administration of food service operations in public and private institutions. Administration of labor and standards of work. 3 lec.

**438 Advanced Food Production Management (2-4)**

Prereq: 437 or equiv, sr rank, perm. (winter) *R. Macauley*. Individual studies and laboratory experiences in management of personnel and cost control procedures. Course may be taken only once.

## HOME ECONOMICS PROGRAMS FOR INTERNATIONAL STUDENTS

**459A Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Special seminars or workshops for international students or for home economics majors who want to prepare for international service. Lec, lab and field trips. Each section may be taken only once. 459A—world food supply and human nutrition.

**459B Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459B—sanitation and health problems.

**459C Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459C—cultural, religious and social influences on family life.

**459D Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459D—cultural, religious and social influences on food patterns and nutrition.

**459E Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459E—working with low-income and disadvantaged families.

**459F Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459F—home and community development, including home management.

**459G Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459G—infant and child care services.

**459H Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459H—establishing home economics extension and other adult programs in developing countries.

**459I Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459I—curriculum studies and evaluation of international home economics programs at the elementary and secondary level.

**459J Home Economics Seminar, Workshop or Short Course in International Service (2-4)**

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459J—curriculum studies and evaluation of international home economics programs and research in higher education.

## **HUMAN SERVICES TECHNOLOGY**

The Chillicothe campus of Ohio University offers a two-year human services program. Students who complete the program will receive the associate in applied science degree in human services technology.

These courses are available only at the Chillicothe campus.

### **101 Principles of Behavior (5)**

Discussion of basic principles of animal and human behavior with emphasis on operant and respondent conditioning. Laboratory designed to demonstrate these principles.

### **102 Introduction to Human Services Technology (3)**

Prereq: Psy 101. Comprehensive introduction to principles and skills required for successful human services work. Coverage includes biological organism, group relationships, behavior management, behavior disorders, physical care and first aid and others.

### **110 Practicum (3)**

Prereq: 102. Supervised introduction to various human service agencies and institutions located in Chillicothe area. Students will interact with professional staff at each agency and will engage in structured observation in each setting. Will be familiarized with philosophies, methods and objectives of each agency and will synthesize their experiences in several seminars in which staff from each agency will participate.

### **125 Psychological Assessment (4)**

Prereq: Psy 101. An introduction to psychological testing and basic statistical concepts necessary to interpretation of test scores. Students will have limited experience in administration, construction and scoring of psychological tests to familiarize them with value and limitations of each instrument.

### **150 Behavior Management I (3)**

Prereq: 101. Examines procedural considerations in applying behavior management techniques including methodology, behavioral objectives, evaluative techniques and design and use of related apparatus.

### **151 Behavior Management II (4)**

Prereq: 102. Discussion of management techniques stemming from experimental analysis of behavior. Emphasis given to methods involving positive management including topics such as reinforcement, schedules of reinforcement, stimulus control, token economics, contingency contracting and others.

### **152 Behavior Management III (4)**

Prereq: 151. Continuation of 151 with emphasis on management techniques employing aversive control, extinction procedures, modeling, desensitization, assertive training and others. Discussion of ethical considerations in application of behavior management techniques.

### **170 Group Dynamics I (4)**

Prereq: Psy 101 and perm. Explores theories and issues current in group dynamics. Provides exercises to demonstrate applications of various theoretical positions. Also discusses methods for implementing groups and outcome evaluation.

### **171 Group Dynamics II (3)**

Prereq: 170. Continuation of 170 with emphasis on participation in a variety of exercises. Students involved both as participants and group leaders. Evaluated on their ability to effectively implement, guide and evaluate groups they facilitate.

### **200 Personal Management (3)**

Prereq: Psy 101. Examines techniques for managing one's own behavior and instructing others in self-control. Discussion of techniques for observing, recording and controlling personal behaviors through utilization of behavior management methods.

### **210 Practicum (5)**

Prereq: 110. Each student will participate in selection of an area agency or institution in which to gain more intensive experiences. Students will familiarize themselves with several facets of the agency under close professional supervision.

### **220 Practicum (5)**

Prereq: 171 and 210. Students provided opportunity to work in specific programs within an agency or institution selected in 210. Individuals expected to function as closely as possible, under supervision, to professional role they will undertake upon completion of program.

### **250 Practicum in Behavior Management (4)**

Prereq: 152. Application of behavior-management principles to humans in laboratory and in applied settings. Students will develop, implement and evaluate behavior management projects in institutions.

### **275 Community Resources (3)**

Prereq: 70 hrs of human services technology coursework. Staff and students from various agencies and institutions in program will meet and discuss their services and populations they serve. Common difficulties, methods for more meaningful service integration and related issues explored in detail.

### **290 Special Problems (1-10, repeatable)**

Prereq: perm. Provides opportunity for students

to explore topics of interest on individual basis, or in structured courses developed as common interests arise. Additionally, credits may be awarded for advanced practicum experiences.

## INDONESIAN

See Foreign Languages and Literatures.

## INDUSTRIAL TECHNOLOGY

The requirements for an industrial arts major in the program leading to a BS in education degree are outlined in the College of Education section of the catalog. The program outline for a BS in industrial technology degree is described in the College of Engineering and Technology section. A teaching option is available under industrial technology.

### 80 Driver Education (2)

For novice drivers. Credit and points not counted toward degree. 2 lec, 2 lab. Fee: \$25.

### 109 Crafts (2)

Working with leather, art metal, enameling and plastics. Open to any student in the University. 4 lab.

### 115 Metal Fabrication (4)

Production practice, including cutting, forming and joining of metals. 1 lec, 6 lab.

### 117 Engineering Metals (3)

Prereq: engineering major. Practice directed toward learning capability of various metal cutting, forming and joining machines. 1 lec, 4 lab.

### 216 Metal Machining (4)

Operation of cutting, grinding and electrical discharge machines, with emphasis on factors affecting quality control during production. 1 lec, 6 lab.

### 220 Small Engines (3)

Assembly, adjustment and gauging procedures, as applied to small 2-cycle and 4-cycle gasoline engines. 1 lec, 4 lab.

### 244 Graphic Processes (3)

Production methods applied to letterpress, offset and screen process printing. 1 lec, 4 lab.

### 250 Wood Industry (5)

Prereq: EG 101. Woodworking procedures and technology, including machine operation. 2 lec, 6 lab.

### 260 Line Supervision (3)

Prereq: 115. Working relationships between personnel involved in production areas of manufacturing considered, including qualifications and characteristics expected for various positions. Case studies provide examples of typical positions and responsibilities available to graduates in industrial technology. 3 lec.

### 270 Report Writing (3)

Practice toward illustration of reporting style and format within subsequent departmental classes. 3 lec.

### 301 Ceramic Production (3)

Ceramic materials, with emphasis on production processes. 1 lec, 4 lab.

### 302 Vitreous Materials (2)

Prereq: 301. Application of industrial ceramic products to problems associated with manufacturing. 4 lab.

### 308 Plastics (3)

Prereq: Chem 122. Applications involving typical materials and forming techniques in production of plastic objects. Study of the industry, its basis and trends. 1 lec, 4 lab.

### 309 Plastics Tooling (2)

Prereq: 308. Study of tooling for plastics forming processes such as extrusion, injection molding and compression molding. 1 lec, 2 lab.

### 310 Metal Casting (3)

Prereq: 250. Foundry practice extending from pattern design through production of finished casting. 1 lec, 4 lab.

### 311 Welding (2)

Prereq: 115. Varied types of welds, using arc, shielded arc, oxy-acetylene and spot welders. Analysis of results based upon testing. 4 lab.

### 312 Metals Production (3)

Prereq: 216. Advanced practice of machining techniques organized to illustrate applications of quantity and quality control. 1 lec, 4 lab.

### 318 Numerical Control (3)

Prereq: 117 or 216. Metal machining extending from planning of work program through production of finished article. 2 lec, 2 lab.

### 319 APT Programming (3)

Prereq: 318. Study and application of APT (Automatic Programmed Tool) part programming as it applies to computer programming and numerically controlled machine tools. 3 lec.

### 320 Hydraulic Controls (3)

Prereq: Phys 201. Application of hydraulic principles to common industrial utilizations for power transmission and mechanism control. Emphasis on study of hardware and circuitry. 1 lec, 4 lab.

**321 Pneumatic Circuits (3)**

Prereq: 320. Components and circuits utilizing compressed air for power and control systems. 1 lec, 4 lab.

**323 Automotive Theory (5)**

Prereq: 220. Adjustments affecting performance and overhaul procedures. Dynamometer testing of performance characteristics. 2 lec, 6 lab.

**332 Electronics (5)**

Prereq: Phys 202. Experimental activity to develop proficiency in utilizing test instruments; learning characteristics of components commonly employed in simple circuits. 2 lec, 6 lab.

**333 Semi-Conductors (3)**

Prereq: 332. Experimental activity revealing performance characteristics of typical components and their functions in basic circuits. 1 lec, 4 lab.

**336 Bioelectronics (3)**

Prereq: Phys 202. Lab course for biological science majors. Electronic principles and circuits, equipment operation and component selection. Emphasis on measurement and instrumentation. 1 lec, 4 lab.

**341 Process Photography (3)**

Prereq: 244, Phys 203. Applications of photography, with emphasis upon standardization of quality control, from exposure through printing by photo-offset and screen process methods. 1 lec, 4 lab.

**342 Color Reproduction (3)**

Prereq: 341. Production of multiple-color materials, including preparation of copy, photography and printing by offset or screen process. 1 lec, 4 lab.

**350 Wood Processes (3)**

Prereq: 250, EG 101. Shaping objects from wood through lamination and other methods as illustrations of processes currently employed in industry.

**351 Jigs and Fixtures (3)**

Prereq: 216, EG 101. Planning and constructing supplemental devices aimed toward increasing production quantity and quality in industry. 1 lec, 4 lab.

**361 Product Design (2)**

Prereq: 250, EG 101. Design principles applied through development of products. 4 lab.

**362 Product Manufacture (3)**

Prereq: 12 hrs, jr rank. Development of entire plan for manufacturing products such as those designed in 361. Plan to include sequence of operations, supply and work flow, personnel requirements, production rate and cost predictions. 6 lab.

**363 Quality Control (2)**

Prereq: 362. Study and application of quality control principles and practices, using products manufactured within other industrial technology classes as illustrative examples. 2 lec.

**380 Driver Safety (5)**

Prereq: Psy 275. Current traffic conditions and regulations affecting driving as preparation to becoming instructors in driver education. Lab involves working with novice drivers. 4 lec, 2 lab.

**381 Traffic Safety (3)**

Prereq: 380. Organization and administration of driver education, including study of related attitudes and methods practiced in existing programs. Practice instruction included. 2 lec, 2 lab.

**390 Materials (3)**

Prereq: 12 hrs. Sources, manufacture and applications of common materials not given more extensive coverage within other departmental courses. 3 lec.

**391 Elementary Industrial Arts (2)**

Prereq: elementary education major. Planning and construction of projects designed to supplement other instruction at elementary level. 4 lab.

**395 Co-op Work Study (5, max 15)**

Prereq: perm. Work-study participation in established industrial training programs. Credit dependent upon advance registration and acceptance by approved companies participating in program.

**396 Intern Supervision (3)**

Prereq: 395 or perm. Practice supervision simulating foremanship level for students involved in production activity within other departmental courses. 1 lec, lab arranged.

**413 Die Making (3)**

Prereq: 312. Preparation and utilization of punching, forming and molding dies for commonly employed industrial processes. 1 lec, 4 lab.

**421 Power Transmission (2)**

Prereq: 323. Practice with common power transmission units, including study of transmission efficiency and adjustments affecting operational characteristics. 4 lab.

**435 Control Circuits (3)**

Prereq: 332. Combinations of basic electronic circuitry in more complex arrangements commonly employed for machine control. Emphasis upon adjustment and correction of malfunctioning controls. 1 lec, 4 lab.

**436 Electronic Applications (3)**

Prereq: 333 or 336. Advanced experimental work on individual problems, as approved by instructor, for extension of knowledge from previous courses. 6 lab.

**443 Advanced Graphics (2, max 4)**

Prereq: 341. Problem solving in graphic reproductions as means of depth study in specific phases of this area. 4 lab.

**470 Intern Teaching (3)**

Prereq: EdSe 351. 12 hrs. (winter) Presenting technical and related material in industrial arts classes. 2 lec, lab arranged.

**483 Safety Programs (4)**

Prereq: 380 or 12 hrs. Organization patterns of safety programs, and how they are applied, in manufacturing industry. 4 lec.

**484 Maintenance Systems (3)**

Prereq: 12 hrs. Maintenance systems currently utilized, with consideration of where and how each may be installed. 3 lec.

## INTERNATIONAL STUDIES

The Center for International Studies offers a certificate in international studies as a supplement to the undergraduate major. The student may concentrate on Asia, Africa or Latin America. The requirements for the Latin American certificate are: (1) six courses relating to Latin America, (2) a study of a language relevant to the student's program through the intermediate level, (3) a grade point average of 2.50 in all courses taken toward the certificate. The requirements for the Asian or African certificate are: (1) nine courses which may be chosen in either of these two options: *Option A* — Three of the courses must be in an African or Asian language and the other six must relate to Africa or Asia; *Option B* — The nine courses must relate to Africa or Asia but with no language requirement; (2) a grade point average of 2.50 in all courses taken toward the certificate. The certificate is awarded upon graduation from Ohio University. Students seeking the certificate must register with the undergraduate certificate advisor in their area studies program.

For further information about the undergraduate certificate, the Center for International Studies, Asian, African and Latin American languages and other international activities, see the Special Programs section of this catalog, page 152.

The Center for International Studies is responsible for the following interdisciplinary courses in the University College:

**103 Modern Asia (5)**

Introduction to history, cultures and current problems of civilizations of Asia. Interdisciplinary survey includes lectures dealing with China, Japan, India and Southeast Asia.

**113 Africa (4)**

Interdisciplinary introductory survey of Africa, its history and modern development allowing student participation to achieve affective and academic goals. Disciplines included: anthropology, art, dance, economics, education, ethnomusicology, geography, government, history, linguistics and literature.

**114 Africa (4)**

Continuation of 113. See 113 for description.

**121 Interdisciplinary Survey of Latin America (4)**

Introduction to Latin America through geography, politics, sociology, economics, literature and art. Special emphasis given to 20th century issues, problems and developments.

## INTERPERSONAL COMMUNICATION

**101 Fundamentals of Speech (3)**

Analysis of role of oral communication in human relationships with consideration of a variety of interpersonal contexts; performance directed toward student development of proficiency in oral communication.

**103 Public Speaking (4)**

Principles of public speaking, practice in presenting informative and persuasive speeches with emphasis on communicative process. Fr and soph only.

**104 Listening (2)**

Improvement of listening skills through intensive practice.

**105 Introduction to Mass Communication (4)**

Development, structure, functions, processes, control and effects of mass media. 4 lec. Same as Jour 105 and R-TV 105.

**107 Introduction to Verbal Language Behavior (2)**

Fundamental linguistic theory of verbal language production in message generation. Sociological and psychological dimensions of language in speech communication are emphasized.

**205 Group Discussion (4)**

Study of structure and internal dynamics of small groups, nature and functions of leadership and group participation, problem solving and decision making; frequent participation in group discussion activities.

**210 Parliamentary Procedure (2)**

Non-lecture, small-group work in theory and pro-

cedures by which organizations are run according to rules of order.

**215 Argumentation and Debate (4)**

Basic principles of argumentative discourse including concepts of presumption, burden of proof, rhetorical forms of reasoning and evidence. Practice in applying of these principles.

**217A Forensic Workshop—Debate (1-6)**

Prereq: perm. Intensive work in Intercollegiate Forensics Program. Students prepare for debate on contemporary issues. For credit, students must participate in 1 intercollegiate contest.

**217B Forensic Workshop—Individual Events (1-6)**

Prereq: perm. Intensive work in Intercollegiate Forensics Program. Students prepare for audience and tournament appearances in persuasion, oral interpretation, extemporaneous, sales, informative and impromptu speaking. For credit, students must participate in 1 collegiate tournament.

**220 Oral Interpretation of Literature (3)**

Techniques of oral interpretation and development of adequate intellectual and emotional responsiveness to meaning of literature.

**334 Introduction to Communication Theory (4)**

Survey of selected humanistic and scientific approaches to communication studies. Emphasis on philosophical bases of communication theory.

**335 Bases of Speech Communication (3)**

Prereq: 107 or perm. (winter) Theory underlying source and message variables with emphasis upon linguistic dimensions of language in speech communication.

**353A History and Criticism of Courtroom Oratory (3)**

Famous cases and methods of communication of masters of courtroom and judicial oratory. Cases, trials including Cicero, Strafford, Charles I, Erskine, Hastings, Marshall, Webster, Darrow, Sacco-Vanzetti. (See also CA 303, 304, 305.)

**353B History and Criticism of Political Oratory (3)**

Methods of communication, rhetorical theories of masters of political oratory. Debates including Burke, Chatham, Pitt, Calhoun, Clay, Webster. Movements including nationalism, imperialism, social and political reform.

**353C History and Criticism of 20th Century Oratory (3)**

Methods of communication of masters of the period. Figures: Hitler, Mussolini, Lenin, Wilson, Churchill, Roosevelt, Kennedy, King. Movements: rhetoric of revolution, nationalism, fascism, socialism, communism, republicanism.

**353D History and Criticism of Black Oratory (3)**

Methods of communication and rhetorical theories of masters of black oratory. Figures drawn primarily from 20th century black speaking.

**404 Principles and Techniques of Interviewing (3)**

Prereq: perm and sr rank. Methods used in 2-party, face-to-face oral communicative situations commonly encountered in organizational and professional environments. Intensive practice through role-playing and real-life interviews in and out of class, emphasizing skills involved in giving and getting information, persuasion and job-employment situations.

**405 Principles of Conference Leadership (4)**

Prereq: 205 or perm. (winter) Theoretical and methodological approaches to principles of group and conference leadership. Emphasis on leadership methods and skills as they apply to group and conference situations.

**412 Advanced Public Speaking (3)**

Prereq: 103 or 217B or perm. Theory and practicum in message preparation and presentation with emphasis on informative and persuasive forms. Intensive concentration on developing individual oral communicative skills.

**421 Teaching Speech Communication I (3)**

Prereq: 3rd qtr jr or sr. Methodologies in teaching intrapersonal, dyadic, organizational and public speech communication.

**422 Teaching Speech Communication II (2)**

Prereq: 421. Individual projects include teaching practicums in lower division courses, and course of study units.

**425 Direction of Forensic Programs (3)**

Prereq: 103 and 217 or perm. Study in curriculum, coaching, budgeting, judging, public relations, professionalism and tournament management. Practical application in university and high school forensics programs.

**432 Creativity in Communication (4)**

Creativity as it relates to communication. Implementation of creativity examined in areas of business, industry, teaching and interpersonal relations.

**433 Applications of General Semantics (4)**

Chief formulations from general semantics and their applications to field of communication.

**435 Theories of Argument (3)**

Relations between formal logic and rhetorical systems of argument; intensive study of fallacies and of experimental findings related to study of argument.

**442 Communication and Persuasion (4)**

Process of communication and attitude change, survey of general theories and typical research, analysis of contemporary persuasion problems.

**445 Communication in Organizations (4)**

Prereq: perm and sr rank. Traditional and modern concepts of channels of communication in complex organizations (government, industry, education, etc.). Influence of organizational theory on communicative patterns and tasks.

**446 Communication and the Campaign (4)**

Prereq: perm and sr rank. Theory and practice of persuasion and management in campaign situations (political, religious, information, fund-raising, advertising, etc.). Students may participate in local, state or national campaigns, or do research paper in depth.

**448 Cross-Cultural Communication (4)**

Analysis of processes and problems of communication as affected by national cultures; effects of differences in language, values, meaning, perception and thought.

**450 Introduction to Rhetorical Theory (3)**

Prereq: 103 and 215 or perm. (spring) Ancient and modern rhetorical communicative concepts and theories.

**452 Psychology of Speech (4)**

Psychological principles active in communication such as concept-reference; vocal, visual and verbal cues; attention, perception.

**458 Responsibilities and Freedom of Speech in Communication (4)**

Review of ethical background, social and political foundations and famous cases of freedom of speech.

**460 Contemporary Public Address (4)**

Analysis of selected speakers and settings since 1933 with emphasis on the last decade; close examination of agitation, confrontation and control as rhetorical strategies; rhetoric of the pulpit; black rhetoric, and rhetoric of women's liberation.

**497 Internship (1-15)**

Prereq: perm. Systematic, supervised practical training and experience for undergraduate students in selected professional environments.

**498 Special Problems (2-4, max 12)**

Prereq: written proposal, perm. May be repeated for credit.

**499 Independent Readings (2-4, max 12)**

Prereq: written proposal, perm. May be repeated for credit.

**ITALIAN**

See Foreign Languages and Literatures.

**JOURNALISM**

The Ohio University School of Journalism is accredited by the American Council on Education for Journalism. As one of a limited number of accredited schools and departments of journalism in the United States, it is a member of the American Association of Schools and Departments of Journalism.

**105 Introduction to Mass Communications (4)**

All the forms of mass communication including newspapers, magazines, radio-television, book publishing, public relations, advertising and photojournalism. Begins with analysis of communication process and ends with media career opportunities. Similar to R-TV 105 and InCo 105.

**221 Graphics of Communication (5)**

Prereq: majors only. Creative and practical aspects of typography, layout and design of printed communication.

**221A Graphics of Communication (5)**

Creative and practical aspects of typography, layout and design of printed communication.

**231 News Reporting (4)**

Prereq: typing proficiency and passage of English Proficiency Test. Methods of gathering and evaluating news and writing typical news stories. Practice work covering assignments and preparing copy.

**231A News Reporting (4)**

Prereq: typing proficiency, nonmajors only. Methods of gathering and evaluating news and writing typical news stories. Practice work covering assignments and preparing copy.

**231B News Reporting (4)**

Prereq: major, prior reporting experience and perm. Accelerated section for journalism majors with some prior experience in reporting. Methods of gathering and evaluating news and writing typical news stories. Practice work covering assignments and preparing copy.

**250 Advertising Principles (5)**

Prereq: advertising and PR majors or perm. Major factors in development of advertising programs.

**250A Advertising Principles (5)**

Major factors in development of advertising programs.

**311 History of American Journalism (5)**

Prereq: major or perm. Development of newspaper, magazine and broadcast journalism from colonial period to present. Social, political, economic and mechanical aspects.

**321 Newspaper Advertising and Layout (4)**

Prereq: 250 and major or perm. Operation of advertising department from viewpoint of advertising manager.

**323 Newspaper Advertising Practice (2)**

Prereq: 321, perm. Lab work in preparing copy for local display advertisers. Other experience in classified, national and promotion advertising.

**325 Photojournalism (3)**

Prereq: 231 or perm. Basic principles and practices of photojournalism for newspapers, magazines and television. Includes consideration of roles of photographers and picture editors in communications and their relationships with other members of the editorial team and mechanical departments of publications. Students shoot, process and print pictures on assignment.

**331 Reporting Contemporary Issues (3)**

Prereq: 231, jr or sr rank. Research, reading and speech reporting on current social problems. Emphasis on intelligent understanding and ability to report in depth for mass audience.

**332 Reporting Practice (2)**

Prereq: 231, perm. Assignments at the *Athens Messenger* in city, sports and women's desk reporting, along with features.

**332B Reporting Practice (2)**

Prereq: 231 and perm, Black Studies Institute only. Assignments at the Black Studies Institute in news and feature reporting about black community.

**333 News Editing (4)**

Prereq: C or better in 231, passage of English Proficiency Test. Copyreading, headline writing, news selection and layout of news pages.

**334 Editing Practice (2)**

Prereq: 333, perm. Copyreading on the *Athens Messenger*. Handling of local correspondence, wire copy and working out make-up problems.

**335 Picture Editing (3)**

Prereq: 333 or perm. Principles and practices of picture editing. Includes consideration of picture sources, assignment and handling; photographic technique and esthetics; legal and ethical factors; visual idiosyncrasies of various media.

**351 News in Broadcasting (3)**

Prereq: 231 and 333 or perm. News programming, practices and problems in broadcasting. Preparation of news reports for broadcasts.

**353 Radio-TV News Practice (2)**

Prereq: 351 or perm. Preparation of news for broadcast. Students serve as assistants in newsroom of University's broadcasting stations or, by special arrangement and perm, in other stations.

**362 Community Newspapers (3)**

Prereq: 333 or perm. Editorial and business practices of suburban weeklies and dailies.

**363 Reviewing and Criticism (3)**

Prereq: 231 and major or perm. Written criticism of fine and popular arts. Special role of critic who serves both as reporter and evaluator of artistic works for lay audience.

**411 Newspaper and Communications Law (3)**

Prereq: 333. Principles and case studies in communications law, constitutional guarantees, libel, privacy, contempt, privilege, copyright and government regulatory agencies.

**412 Mass Media and Society (3)**

Prereq: 333 or perm. Social responsibility of journalistic or other mass communicator. Professional codes, responsibility of media for social change, reaction to political and economic pressures.

**421 Graphic Production Processes (5)**

Prereq: 221 and perm. Advanced study of all processes for reproducing printed communication. Theory and lab.

**422 Advertising Production (3)**

Prereq: 221, 321 or perm. Techniques and problems in methods of advertising production.

**430 Magazine Editing and Production (3)**

Prereq: 221. Theory and techniques of magazine editing and production, including analysis of the magazine industry and of specific magazines and audiences they serve. Editorial objectives and formulas, issue planning, article selection, layout, illustration, typography, printing and distribution. Magazine project required.

**431 Magazine Editing and Production Practice (3)**

Prereq: 430. Practice course where students completing 430 can apply their knowledge to production of a quarterly magazine done regularly by the School of Journalism. Each student assigned a specific position on magazine. Laboratory magazines produced in course of qtr.

**432 Specialized Magazines (3)**

Prereq: perm. As time of mass circulation magazine appears to wane, specialty magazine (professional, special interest, business, industrial, learned, demographic) strengthens. This course considers publishing problems in all these areas usually in form of case studies. Students asked to draw a prospectus for a specialty magazine and audience studies are carried out.



**441 Magazine Feature Writing (4)**

Prereq: 231 and 333, 15 hrs English or perm. Writing and marketing factual magazine feature articles of various types. Finding subjects, securing photographs, writing articles and surveying markets.

**442 Advanced Magazine Feature Writing (3)**

Prereq: 441. Writing and marketing magazine articles. Emphasis on specialized markets.

**450 Advertising Copy Writing (3)**

Prereq: 250 and advertising or PR majors or perm. Effective persuasion in print.

**452 TV Newsfilm Production and Editing (3)**

Prereq: 351 or perm. Principles and practices of TV newsfilm production and editing. Similar to R-TV 452.

**455 Seminar in Broadcast News (3)**

Prereq: perm. Discussion of problems—operational, social, economic, legal and ethical—faced by broadcasters reporting public affairs.

**461 Specialized Journalism (3)**

Prereq: sr rank and perm. Seminar approach to individual study of journalistic areas of special interest to individual students.

**462 Internship (3)**

Prereq: perm before beginning internship. Conference course for students who have completed internship with an approved organization. Student will submit a comprehensive report analyzing his internship experience.

**464 Reporting of Public Affairs (3)**

Prereq: 333, sr rank, major or perm. Problems of preparing in-depth, interpretive and analytical reports on public affairs for mass media, with practice in writing such reports. Focus mostly on contemporary controversial issues.

**465 The Editorial Page (3)**

Prereq: 333, sr rank, major or perm. Editorial page in opinion formation. Problems of content selection and presentation. Extensive writing of analytical and persuasive editorials and interpretive articles in depth.

**466 International Communications (5)**

Prereq: sr rank and major or perm. Development and operations of world mass communication channels and agencies. Comparative analysis of media, media practices and flow of news throughout the world. Relation of communication practices to international affairs and understanding.

**467 Foreign Correspondence (3)**

Prereq: sr rank and 466 or perm. Role of foreign correspondent in news-gathering. History, scope, techniques.

**471 Public Relations Principles (5)**

Prereq: 333, sr rank, and PR major or perm. Public relations planning and techniques; selected communication studies and theories. Polling, defining objectives and analysis of public relations messages.

**472 Advanced Public Relations (4)**

Prereq: 471 or perm. Planning public relations programs and projects, including selection of audiences, messages and media, and evaluation of effects. Project in area of student's interest.

**481 Newspaper Management (3)**

Prereq: 333. Problems in publishing affecting all departments.

**482 Radio-Television Advertising and Management (4)**

Prereq: 250 or perm. See title.

**484 Supervising School Publications (4)**

Prereq: 12 hrs or perm. Conference course for prospective advisers of school newspapers, yearbooks, magazines and other publications. Purposes and functions, legal aspects, staff selection, content, copy, layout, production, printing, advertising, photography, business.

**485 Journalism in the Secondary School Curriculum (4)**

Prereq: 9 hrs of journalism. (spring) Intensive study and analysis of appropriate content for high school journalism courses. Planning course outlines and curricula.

**490 Independent Study (1-4)**

Prereq: written proposal and perm. See title. May be repeated to 15 hours' credit.

**491 Research in Journalism and Communications (1-15)**

Prereq: perm.

**492 Seminar (1-4)**

Prereq: 333, sr rank. Selected topics of current significance. May be repeated with different topics to 12 hours' credit.

## LATIN

See Foreign Languages and Literatures.

## LATIN AMERICAN STUDIES

See International Studies.

## LAW ENFORCEMENT TECHNOLOGY

The Chillicothe campus of Ohio University offers a two-year law enforcement program. Students who complete the program will receive the associate in applied science degree in law enforcement.

These courses are available only at the Chillicothe campus.

### 101 Introduction to Law Enforcement Technology (3)

Philosophy and history of law enforcement; overview of crime and police problems; organization and jurisdiction of local, state and federal law enforcement agencies; survey of professional career opportunities and qualification required.

### 102 Constitutional Law, Criminal and Civil (3)

Study of the U.S. Constitution and amendments thereto by text material and case method system; major emphasis in freedom of speech, search and seizure, arrest and detention, interrogation and confession, self incrimination, right to counsel, double jeopardy and due process situations.

### 103 Police Role in Crime and Delinquency (3)

Prereq: 101 or perm. Extent and distribution of crime and delinquency, with special emphasis on basic factors and conditions contributing to problem; some case study and evaluation of community resources in prevention field and detailed review of role of school, family, religious institutions, law enforcement agencies, courts and correctional institutions. Part law enforcement agencies play in juvenile delinquency control, organization and functions of related juvenile agencies, laws governing handling of juvenile offenders and a brief resume of the juvenile court and its jurisdiction.

### 201 Courts Structure, Procedure and Rules and Tests of Evidence (4)

Prereq: 102 or perm. Instruction designed to acquaint officer with court's system in Ohio, its functions, authority and duties. Explains workings of all courts of record and provides description of Mayor's Courts which are the only "courts not of record" in State of Ohio. Kinds and degrees of evidence. Admissibility of evidence in criminal court cases, materiality and competency of evidence. Distinction between admissions and confessions; exceptions to hearsay rule; types of evidence.

### 202 Cybernetics (3)

Prereq: 103 or perm. Application and use of computers and/or automated systems for rapid storage and retrieval of information. Types of electronic data processing systems and their compatibility with contemporary police operations explored.

### 203 Law Enforcement, Administration and Supervision (3)

Prereq: 103 or perm; 2nd yr law enforcement technology students or law enforcement personnel. Principles of law enforcement agency administration. Organization, planning and research, management, personnel management, training and public relations. Administrative functions in vice control, crime delinquency prevention and control, patrol, investigation, communications, statistics and records.

### 204 Vice and Narcotic Control (3)

Exploration of history, identification and effects of narcotics. Narcotic and vice problem as it exists and penal statutes affecting control of narcotics and vice studied.

### 205 Police Community Relations (3)

Nature of relationships between police and various segments of community; racial and/or ethnic minorities, news media, clergy and youth explored. Historical reasons for present dilemma and suggested changes to alleviate these problems.

### 206 Criminal Investigation (3)

Prereq: 201. Fundamentals of investigation; crime scene search and recording; collection and preservation of physical evidence, scientific aids, *modus operandi*, sources of information, interviews and interrogation, follow-up and case preparation. 3 lec, 2 lab.

### 207 Traffic Enforcement, Education and Engineering (3)

Prereq: 102. Law relating to registration of motor vehicles, driver's license, Vehicle Code sections most often encountered and violated, regulation and traffic control, traffic accident investigation, traffic accident report forms; types and uses.

### 208 Arrest, Search and Seizure (3)

Prereq: 2nd yr law enforcement technology students or law enforcement personnel or perm. In-depth discussion of moral and legal obligations in use of police weapons. Includes legal provisions, safety precautions and restrictions in use of firearms. Advanced theories and application, police combat shooting, all-weather firing and new developments in police weaponry. Training for student in lawful methods of search and seizure and discussion of search of persons, places and things, with emphasis on legality. Applicable court decisions and rulings presented and discussed. 3 lec, 2 lab.

## LIBRARY MEDIA TECHNOLOGY

Ohio University-Lancaster offers a two-year program for library media technicians leading to

an associate in applied science degree. Requirements for the degree consist of 45 hours of LMTC career courses, 25 hours in related courses and 23 hours in general education courses.

This program prepares the student for employment as supportive staff in libraries between the professional librarian and the library clerk. These courses are available only at the Lancaster campus.

### **101 Introduction to Libraries and Library Technology (3)**

General introduction to libraries and their organization. Designed for students interested in employment as library technical assistants in special, school, public or college libraries.

### **102 Support Operations for Public Services I (4)**

Designed to acquaint library technology students with various kinds of public services including circulation control systems, location of information and public relations.

### **103 Support Operations for Public Services II (4)**

Emphasizes materials and techniques in reference and information services. Includes understanding of skills needed in patron interviews.

### **104 Support Operations for Technical Services I (4)**

Basic procedures in ordering, receiving, organizing and processing of printed library materials.

### **201 Support Services for Specific Groups I (4)**

Introduces different types of library users — children, young adults, disadvantaged, minorities, etc. Provides background information concerning material, print and nonprint, to enable LMTC to direct public to library service which will best serve its needs.

### **202 Support Services for Specific Groups II (4)**

Specific techniques with which LMTC assists librarian in direct service to community of library users. Introduction of new and innovative methods of servicing total library community.

### **203 Library Technician Internship (3)**

Prereq: perm. Exploratory experience in several types of libraries: observation plus participation in routines where possible.

### **204 Support Operations for Technical Services II (3)**

Introduction to simple cataloging and classifying procedures.

### **205 Library Technician Internship II (4)**

Prereq: perm. Work experience—180 hrs or approximately 5 wks—in library/media center. Exposure to variety of activities under qualified professional staff. Weekly seminar required (See 209).

### **206 Audio-Visual Methods and Materials (4)**

Operation and simple maintenance of audio-visual equipment and technical procedures used in processing, cataloging, circulating and servicing requests for audio-visual materials.

### **207 Preparation of Audio-Visual Materials (4)**

Preparing simple audio-visual materials and sources of commercially prepared materials.

### **208 Support Operation for Technical Services III (3)**

Prereq: 204. Additional study and practice in cataloging and classification including non-print media.

### **209 Seminar (1-3)**

Prereq: 205. Weekly seminar required of those taking 205. Credit hours determined by amount of necessary independent study.

### **290 Independent Study (1-10)**

Prereq: perm. Research in selected areas of library science and technology under direction of faculty member.

## **LIBRARY SCIENCE**

### **201 The Use of Library Resources I (3)**

(fall, spring) Effective use of modern library reference resources. Required for minor in library science. Stresses general works. May be taken without 202 by those who do not choose to minor in educational media.

### **202 The Use of Library Resources II (3)**

Prereq: 201. (winter) Training in effective use of modern library reference resources. Required for minor in educational media. Stresses specific subject reference materials.

### **301 Library Services for Children (4)**

(spring) Book and media selection and group work with children, including story programs, book talks, library lessons, using media and practical experience with children.

### **302 Books and Media for High School Students (4)**

(winter) Books and other media considered for whole learning approach. Required for minor in educational media.

### **402 Advanced Library Studies (2-5)**

Prereq: perm. Elective designed for student who wants to explore some facet of library work in greater depth.

### **403 Classification and Cataloging (5)**

(fall) Classifying and cataloging books and non-book materials with practice in preparation of card catalog for high school media center. Required for minor in educational media.

## LINGUISTICS

A major in linguistics is not offered. Students desiring to prepare for graduate study in linguistics should consider taking 270, 280, 290, 350, 380, 395, 460, 470, 486 and 491. Programs in related fields in communication, social sciences and humanities can be enriched by inclusion of these linguistic courses open to undergraduates. See the entry, Linguistics, under Special Curricula in the College of Arts and Sciences, p. 74.

### 270 The Nature of Language (5)

Nontechnical investigation into basic nature of human language.

### 280 Language and Culture (4)

Similarities and differences of language behavior in a variety of cultural contexts.

### 290 Introduction to Psycholinguistics (4)

Prereq: Psy 101. (fall) Study of linguistic behavior and psychological mechanisms responsible for it.

### 350 Introduction to General Linguistics (5)

Prereq: jr or sr rank. Technical introduction to devices of language description, and survey of relationships and applications of linguistics to other disciplines.

### 380 Language and Culture (5)

Similarities and differences of language behavior in a variety of cultural contexts. (Same as 280 except paper required.)

### 395 Introduction to Area Linguistics (3 or 5)

Prereq: perm. (winter) Investigation of linguistic characteristics of a specific group or subgroup of languages within Malayo-Polynesian or African families.

### 460 Phonology (5)

Prereq: 350 or perm. (fall) Introductory course in analysis of sound systems of natural languages.

### 470 Syntax (5)

Prereq: 350 or perm. (fall) Introduction to theory and application of grammatical analysis of natural languages. Followed by 472.

### 486 Theories of Language Learning (3)

Prereq: perm. (fall) Introduction to theories of 1st and 2nd language acquisition and their implication for language teaching methodology.

### 490 Special Studies in Linguistics (1-3)

Prereq: perm. Independent study of a particular area of interest in linguistics.

### 491 Sociolinguistics (3)

Prereq: jr or sr rank. (spring) Introduction to relationships between interlocking systems of language and social grouping.

## MALAY

See Foreign Languages and Literatures.

## MANAGEMENT

The management major is designed primarily for those who expect to be responsible for the work of other persons. The courses in this curriculum are tailored for present and future supervisors, executives or administrators in business, government and other institutions.

There are three courses in the core curriculum for the BBA degree which specifically tie in with subsequent courses required of a student majoring in management. These three courses are: BusL 255—Law and Society; Mgt 300—Management; Mgt 325—Communication Behavior in the Modern Organization. A student majoring in management may take one or more of these courses during the sophomore year.

In addition to the BBA degree requirements, a student majoring in management must complete a departmental core composed of the following three courses which should be taken during the junior year: BusL 356—Law of the Management Process; Mgt 435—Management of Human and Technological Information Systems; Mgt 440—Organizational Behavior-Leadership and Motivation.

A student majoring in management must also complete courses in one of the two structured concentration tracks: (1) Manpower Management Track: Mgt 420—Administration of Personnel; Mgt 425—Labor Relations; Mgt 426—Manpower Management; (2) Organizational Behavior Track: Mgt 445—Organizational Behavior-Work Groups and Formal Organizations; Mgt 494—Management Research; Mgt 496—Organizational Behavior-Management Change.

Any student who does not care to select one of the two tracks may, with prior counsel and written approval of his advisor, tailor a track from existing course offerings in the Department of Organizational Science.

### 200 Introduction to Management (4)

Prereq: Not recommended for CBA students. Nature of managerial concept, managerial functions and organizational structure, with emphasis on current issues.

### 300 Management (4)

Prereq: jr rank or soph if management major. Understanding of and practice in solving problems facing managers and administrators using concepts and principles from behavioral sciences and other applicable disciplines.

### 325 Communication Behavior in the Modern Organization (4)

Prereq: jr rank or soph if management major.

Various communication strategies which will help student employ more effectively diverse communication media available in organizations today. Emphasis on communicator invention and arrangement of oral and written communiques and receiver adaptation through feedback analysis.

#### **420 Administration of Personnel (4)**

Prereq: 300 or perm. Compendium of practices in personnel management. Consideration of such areas as employee selection, training, performance evaluation and wage and salary administration.

#### **421 Personnel Management Problems (4)**

Prereq: 420. Personnel problems and their relation to various ethological concepts. A case approach.

#### **425 Labor Relations (4)**

Prereq: 300 or perm. Climate of relations between labor and management, union organizing, collective bargaining, grievance procedures, arbitration. Uses readings, cases and class exercises to develop understanding of labor-management problems and ability to solve them.

#### **426 Manpower Management (4)**

Prereq: 420 and 425. Advanced course in manpower management, integrating personnel and labor relations functions at planning and policy-making level.

#### **430 Information Management (4)**

Prereq: sr rank or perm. Information networks and flows in organizations within a total-systems framework.

#### **435 Management of Human and Technological Information Systems (4)**

Prereq: jr rank or perm. Focuses upon humans and machines as components of formalized information systems. Subject matter approached from systems and procedures viewpoint, with particular emphasis on management planning and control techniques.

#### **440 Organizational Behavior—Leadership and Motivation (4)**

Prereq: 300 or perm. Conceptual framework of behavioral sciences to management and organizations. Motivation and leader behavior within organizational settings.

#### **445 Organizational Behavior—Work Groups and Formal Organizations (4)**

Prereq: 440 or perm. Organizational theory and behavior emphasizing formal organizational theory and work group behavior. Concentrates on interaction between organization, its environment and its members, and influences of informal work groups on member behavior.

#### **484 International Comparative Management (4)**

Prereq: sr rank. Survey and analysis of similarities

and differences in management systems, processes and styles, as well as evaluation of changes and their impact in selected groups of countries.

#### **491 Seminar (3, 4 or 5)**

Prereq: perm. Selected topics of current interest in management and organizational behavior area.

#### **492 Management Thought (4)**

Prereq: sr rank. Review of development of managerial theories from 5000 B.C. to present with consideration of their application to present organizational settings.

#### **493 Readings (1-15)**

Prereq: perm. Readings in selected fields of management and organizational behavior. Topics selected by student in consultation with faculty member.

#### **494 Management Research (4)**

Prereq: 12 hrs of management courses. Practical application of research methods in behavioral sciences to management problems, emphasizing research available and its use in decision making and in solving managerial problems.

#### **495 Research (3, 4 or 5)**

Prereq: perm. Methodology, analysis of data and preparation of research findings.

#### **496 Organizational Behavior—Managing Change (4)**

Prereq: 440 and 445 or perm. Planning and implementing change in organizational settings.

#### **497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of management and organizational behavior under direction of faculty member.

## **MARKETING**

The marketing major prepares students to become professional marketing personnel via available coursework in sales management, marketing research and consumer behavior and marketing analysis and management.

In addition to the BBA degree requirements, a student majoring in marketing must complete 24 hours of marketing courses at the 300 or 400 level including 463.

#### **101 Consumer Survival in the Marketplace (4)**

How consumer can adapt himself to modern marketing environment so as to optimize satisfaction derived from spending his money.

#### **301 Marketing Principles (4)**

Prereq: Econ 101 or 301 and jr rank (3rd qtr soph if marketing major). Principles of marketing management with emphasis on practices and prob-

lems of marketing manager; analysis of marketing environment; lectures supplemented with cases.

### **303 Marketing Problems and Cases (4)**

Prereq: 301. Problems facing manufacturers and middlemen in marketing programs. Students will develop integrated marketing programs based on cases taken from actual business situations. Emphasis on development of analytical skills.

### **404 Management of Distribution (4)**

Prereq: 301. Problems encountered by manufacturer in establishing and maintaining effective distribution system, concentrating on channel design and strategies.

### **425 Industrial Marketing (4)**

Prereq: 301. Investigation and analysis of problems involved in marketing of industrial products.

### **444 Consumer Behavior (4)**

Prereq: 301 and 8 hrs psychology and/or sociology. Individual, social and cultural influences that affect consumer behavior. Consideration of explanatory and predictive models.

### **450 Management of Promotion (4)**

Prereq: 301. Problem-solving course leading to development and management of firm's promotional "mix" with emphasis on use of mass media and on stimulation of reseller's cooperation.

### **458 Sales Management (4)**

Prereq: 301. Principles and practices in planning, organizing and controlling sales force. Selection, training, compensating, supervising and stimulating salesmen. Analysis of sales potentials and costs.

### **461 Social Issues of Marketing (4)**

Prereq: 301. Designed to increase awareness of future marketing managers of contemporary social issues and legal requirements of marketplace. Social critics, past and present, and their criticisms, including excessive promotion, unsafe and unnecessary products, high prices and possible societal and governmental responses to these criticisms.

### **463 Marketing Strategy (4)**

Prereq: sr rank and marketing major or perm. Analysis of preparation and organization of overall marketing plans and elements of marketing mix. Also developed are merchandising analyses, objectives and strategies which take into consideration the ever-changing consumer, trade and legal environment.

### **479 Marketing Research (4)**

Prereq: 21 hrs business administration, 8 hrs marketing. Techniques involved in collection, tabulation and analysis of marketing information.

### **480 Mathematical Models of Marketing Analysis (4)**

Prereq: 479. Quantitative techniques that can be used in analysis of marketing problems and application of these methods to problem situations. (Taught on team basis with marketing and quantitative methods faculty.)

### **491 Seminar (3, 4 or 5)**

Prereq: perm. Selected topics of current interest in marketing area.

### **497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of marketing under direction of faculty member.

## **MATHEMATICS**

The requirement for the AB and BS degree in mathematics is 50 quarter hours in courses numbered 200 or above, 15 hours of which must be chosen from courses numbered 333 and above, all taken for grade.

When planning any program of study in mathematics, it is strongly recommended that the student consult an advisor from the department.

A student wishing to study mathematics strictly from a mathematician's viewpoint, in specially designed courses, should inquire about our Honors Program and the Tutorial Program. (Standard courses listed in the bulletin are designed to serve many departments and purposes.)

A student studying mathematics with the view of eventually doing graduate work in mathematics is encouraged to pattern a program around the following suggested basic course selections: Math 263A, B, C (or H294, -5, -6), 340, 360, 211 and/or 214. 411, 460A, B, C, and at least one (possibly both) of the sequences 413A, B or 480A, B. For more detailed information and recommendations, the student should consult the College of Arts and Sciences Special Curricula section of this catalog.

A student wishing to use mathematics training in business and industry may elect to pursue studies in applied mathematics. Such a course of study may terminate in a BS degree or be continued into graduate studies. For more detailed information and some example programs of study, the student should consult the College of Arts and Sciences Special Curricula section of this catalog.

A student preparing for teacher certification should seek a broad background in various areas of mathematics, including algebra, analysis, geometry, computer science, probability and statistics. In addition to the specified course requirements listed by the College of Education on page 106, suggested electives include: Math 211, 360, 333, 300, 406, 207, and 250B. Consult an advisor in the Mathematics Department or College of Education for additional information.

Courses labeled 150 or below (with the exception of Math 116 when taken as a prerequisite for Math 263B) are not open for credit to students who have passed a mathematics course with a number higher than 150. Math 113, 116 and 130 are essentially remedial precalculus courses. Before enrolling in Math 163A or 263A, it is recommended that the student take a self-administered test available at the Mathematics Department or at University College to decide if any of these remedial courses are needed.

For mathematics majors, all prerequisites are recommended but not required.

### **113 Algebra (5)**

Prereq: at least 1 yr h.s. algebra. Review topics in high school algebra including linear and quadratic equations and inequalities, factoring, fractions, radicals and exponents and simple graphing techniques.

### **116 Analytic Trigonometry (2)**

Prereq: 2 yrs h.s. math. Trigonometric functions and their properties, identities, equations and applications.

### **120 Elementary Topics in Mathematics (5)**

Prereq: 2 yrs h.s. math. Emphasis on the number system and related properties. Primarily for majors in elementary education and related fields.

### **121 Elementary Topics in Mathematics (5)**

Prereq: 2 yrs h.s. math. Topics include algebra, geometry, statistics and probability. Primarily for majors in elementary education and related fields. 120 is not a prerequisite.

### **130 Plane Analytic Geometry (3)**

Prereq: 113, or equiv. May be taken concurrently with 116. Straight lines, circles, conic sections, functions and graphing of functions studied.

### **163A Introduction to Calculus (4)**

Prereq: 2 yrs h.s. math or 113 or equiv. (fall, winter) Presents survey of basic concepts of calculus. A sequence for students who want an introduction to calculus but do not need the depth of Math 263 ABC. Note: Not open for credit without permission to students who have credit for Math 263A. Students strongly urged to come to department office for advice in attempting a transfer from 163 sequence to 263 sequence.

### **163B Introduction to Calculus (4)**

Prereq: 163A. (winter, spring) Continuation of 163A. Note: Not open for credit without permission to students who have credit for Math 263B. Students strongly urged to come to department office for advice in attempting a transfer from 163 to 263 sequence.

Note: The following three courses (207, 211 and 214) are primarily intended for prospective mathematics majors to introduce them to some mathematical theory at an elementary level.

### **207 Introduction to Number Theory (5)**

Prereq: 113, or 4 yrs h.s. math. (fall, winter) Introduction to one of the simplest yet most challenging branches of mathematics. Topics include mathematical induction, prime factorization, Euclidean algorithm, Diophantine equations, congruences and divisibility.

### **211 Elementary Linear Algebra (5)**

Prereq: 113, or 4 yrs h.s. math. Matrix as an array. Elementary row operations. Invertible matrices and systems of linear equations. Vector spaces and linear dependence and independence of vectors. Basis and dimension. Linear transformations. Determinants.

### **214 Elementary Abstract Algebra (5)**

(spring) Mappings. Relations. Definitions and examples of groups. Groups of rotations. Cyclic groups. Lagrange's Theorem. Fields. Polynomials over fields.

### **230 Foundations of Geometry (5)**

Prereq: 113, or 4 yrs h.s. math, or perm of math dept. (fall) Introduction to axiomatic mathematics via 2 finite geometries and a variety of interpretive models. Develops plane Euclidean and non-Euclidean geometries in rigorous fashion from a modified Hilbert axiom system.

### **250A Finite Mathematics (5)**

Prereq: 2 yrs h.s. math. (fall, winter) Set theory; logic; vectors and matrices; linear programming.

### **250B Finite Mathematics (5)**

Prereq: 2 yrs h.s. math. (winter, spring) Elementary probability and statistics.

### **263A Analytic Geometry and Calculus (5)**

Prereq: 113, and 116, 130 or 4 yrs h.s. math or perm of math dept. 263A-B-C is a basic introduction to calculus with emphasis on techniques and their applications. Topics covered: functions and limits, differentiation and integration, analytic geometry, vectors, transcendental functions, polar coordinates, solid analytic geometry, partial differentiation, multiple integrals, infinite series. NOTE: Not open for credit without permission to students who have credit for both Math 163A and B. Students strongly urged to come to department office for advice in attempting a transfer from 163 sequence to 263 sequence.

### **263B Analytic Geometry and Calculus (5)**

Prereq: 263A or 163B or equiv. Continuation of 263A. See 263A for description.

### **263C Analytic Geometry and Calculus (5)**

Prereq: 263B. Continuation of 263A-B. See 263A for description.

### **H294 Honors Math for Freshmen (6-10)**

Prereq: perm. (fall) Special program for students of unusual ability.

**H295 Honors Math for Freshmen (6-10)**

Prereq: H294 or perm. (winter) Special program for students of unusual ability.

**H296 Honors Math for Freshmen (6-10)**

Prereq: H295 or perm. (spring) Special program for students of unusual ability.

**H297 Honors Math for Sophomores (6-10)**

Prereq: H296 or perm. (fall) Special program for students of unusual ability.

**H298 Honors Math for Sophomores (6-10)**

Prereq: H297 or perm. (winter) Special program for students of unusual ability.

**H299 Honors Math for Sophomores (6-10)**

Prereq: H298 or perm. (spring) Special program for students of unusual ability.

**300 History of Mathematics (5)**

Prereq: math major, jr, sr rank. (spring) Survey of main lines of mathematical development in terms of contributions made by great mathematicians.

**320 Teaching of Mathematics in Secondary School (5)**

Prereq: 214, 230 and jr rank. (fall, spring) Orientation to professional mathematics education and topics related to teaching of mathematics on secondary school level. Not counted toward math major.

**333 Elementary Projective Geometry (5)**

Prereq: 230 or perm. (winter) Topics in projective geometry.

**340 Differential Equations (5)**

Prereq: 263C. Ordinary differential equations and related topics.

**360 Intermediate Analysis (5)**

Prereq: 263C. (fall, spring) Rigorous study of limits, continuity and differentiability of functions of one real variable.

**406 Foundations of Mathematics (5)**

Prereq: 211 and 214. (fall, winter) Introductory topics in set theory and axiomatic development of real number system.

**407 Number Theory (5)**

Prereq: 207, 263C. (spring) Topics in number theory.

**410 Matrix Theory (5)**

Prereq: 263C. (fall, spring) Matrix algebra, matrix solutions of linear equations, linear dependence and independence, rank and equivalence, determinants, eigenvalues and eigenvectors. Intended primarily for engineering and science students and not recommended for persons who have taken 211.

**411 Linear Algebra (5)**

Prereq: 211 or 410. (fall) Vector spaces and linear transformations, characteristic values, quadratic forms, dual spaces, normal forms and Jordan canonical form.

**413A Introduction to Modern Algebra (5)**

Prereq: 411 or equiv mathematical maturity. (winter) Groups, permutation groups, subgroups, normal subgroups, quotient groups. Conjugate classes and class equation formula and its applications to p-groups. Fundamental theorem on homomorphisms.

**413B Introduction to Modern Algebra (5)**

Prereq: 413A. (spring) Fundamental theorem on finite abelian groups and its consequences. Cauchy theorem and first Sylow theorem. Polynomial rings. UFD and Euclidean domains. Maximal ideals. Algebraic extensions and splitting fields. Fundamental theorem of Galois theory.

**439 Topics in Geometry (1-5)**

Prereq: perm. When demand is sufficient a course in some phase of geometry will be offered under this number. May be repeated for credit up to 10 hrs.

**440 Vector Analysis (5)**

Prereq: 263C. (spring) Vector algebra and its applications. Vector calculus and space curves. Scalar and vector fields, gradient, divergence, curl and Laplacian. Line and surface integrals, Divergence theorem, Stoke's theorem and Green's theorem.

**441 Fourier Analysis and Partial Differential Equations (5)**

Prereq: 263C. (winter) Representation of functions as sums of infinite series of trigonometric functions, Bessel functions, Legendre polynomials or other sets of orthogonal functions. Use of such representations for solution of partial differential equations dealing with vibrations, heat flow and other physical problems.

**442 Theory of Linear Programming and Non-linear Programming (5)**

Prereq: 211 or 410, computer programming experience is desirable. (spring) Minimization of functions subject to equality and inequality constraints, Kuhn-Tucker theorem, algorithms for function minimization, such as steepest descent and conjugate gradient and penalty function methods. (Not a course in computer programming.)

**444 Introduction to Numerical Analysis (5)**

Prereq: 263C, 340, and CS 253. (winter) Polynomial interpolation and approximation; numerical integration and differentiation; numerical solution to differential equations; numerical methods for matrix inversion, determination of eigenvalues and solutions of systems of equations.



#### **450A Theory of Statistics (5)**

Prereq: 263C (Some students find 250B also helpful). (fall) Probability distribution of one and several variables; conditional probability and independence; moment generating functions; central limit theorem.

#### **450B Theory of Statistics (5)**

Prereq: 450A. (winter) Sampling theory, estimation of parameters, confidence intervals, analysis of variance, correlation and testing of statistical hypotheses.

#### **460A Advanced Calculus (5)**

Prereq: 360. (fall) Critical treatment of functions of a single variable. Emphasis on topics not treated in 360, such as compactness, nested intervals, deeper properties of continuous functions, Riemann-Stieltjes integration and uniform convergence.

#### **460B Advanced Calculus (5)**

Prereq: 460A. (winter) Primarily devoted to study of differential calculus in  $n$ -space. Topics include review of inner product spaces and linear transformations, elementary topology of the plane, limits and continuity of functions of several variables, directional derivation, differential, chain rule and implicit function theorem.

#### **460C Advanced Calculus (5)**

Prereq: 460B. (spring) Primarily devoted to study of integral calculus in  $n$ -spaces. Riemann-Darboux integral, Jordan content, iterated integrals, transformation of integrals, differential forms and their integrals.

#### **470 Applied Complex Variables (5)**

Prereq: 263C. (fall) Analytic and harmonic functions, Cauchy integral and residue theorems, contour integration, Taylor and Laurent expansions, conformality and linear transformations with applications.

#### **480A Elementary Point Set Topology (5)**

Prereq: 360. (winter) Topology of Euclidean spaces and general metric spaces.

#### **480B Elementary Point Set Topology (5)**

Prereq: 480A. (spring) Introduction to general topological spaces.

#### **490 Selected Topics in Mathematics (1-5)**

Prereq: perm of instructor and chairman. When demand is sufficient, a course in some phase of mathematics will be offered under this number. (May be repeated for credit.)

#### **491 Studies in Mathematics (1-15)**

Prereq: 6 hrs of 400-level courses, sr rank or jr rank in Honors College, or perm of chairman and instructor. Selected topics in mathematics studied under guidance of instructor particularly interested in field. (May be repeated for credit.)

## **MEDICAL TECHNOLOGY**

See Zoology.

## **MENTAL HEALTH TECHNOLOGY**

All of these courses must be taken in sequence and are available only to those students who have been admitted to the AA program in mental health technology.

#### **101 Introduction to Mental Health Work (3)**

Prereq: Admission to program. Orientation to field of mental health work. History, definitions, current concepts and roles of various workers in field reviewed and discussed. Aspects of work with patients and agencies treated through field trips.

#### **122 Introduction to Social Casework (3)**

Prereq: 101. Covers theory and methods of casework, interviewing and counseling techniques and case recording. Provides direct contact with patients under supervision of trained personnel.

#### **201 Activity Therapies (3)**

Prereq: 122. Survey of objectives, materials and techniques of various ancillary therapies. Students become familiar with organization, content and application of activity programs for various age levels in both hospital and agency settings.

#### **221 Practicum in Mental Health I (5)**

Prereq: 201. First of 3-qr sequence involving field work in agency or institutional setting and on-campus laboratory experience. Orientation to agency structure and procedures and service to clients under supervision of professional staff.

#### **222 Practicum in Mental Health II (5)**

Prereq: 221. Continuation of field placement and laboratory. Increased direct service to clients in agency setting.

#### **223 Practicum in Mental Health III (5)**

Prereq: 222. Continuation of supervised work experience in field placement and on-campus laboratory.

#### **231 Seminar in Mental Health (3)**

Prereq: 222. Emphasis on development of skills in presentation, handling of problems and sharing of problems with professional staff and with others involved in treatment process. Includes development of skills in referring patients to and utilizing appropriate community resources.

## MILITARY SCIENCE

Army ROTC offers two programs on military science which lead to a commission as a second lieutenant in the Army Reserve, or in selected cases, in the Regular Army. The design of the programs is to place outstanding young men and women in the Reserve Forces as commissioned officers.

The four-year program consists of a basic course and an advanced course. The basic course requires successful completion of MSc 100- and 200-level courses during the freshman and sophomore years. The advanced course requires successful completion during the last two academic years of MSc 300- and 400-level courses. Average contact time between students and instructors each week is two hours of classroom training and one hour of leadership laboratory. The sequence of classes must be approved by the department.

The two-year program is aimed at students who decide to seek a commission during their junior and senior years, or for those graduate students who will have two academic years remaining. The topics for the two-year program are identical to those listed previously for the advanced ROTC course. Eligibility for the two-year program is determined by successful completion of MSc 230. Applicants for this program must apply during February and March preceding their entrance into the ROTC program in September the following academic year. Average contact time between students and instructors weekly is three hours of classwork and one hour of leadership laboratory.

No military obligation is incurred for the first two years of the four-year program. Following completion of the two-year basic course, qualified students are accepted into the advanced program by entering the Army Reserve, for which they receive a subsistence of \$100 each academic month for the regular two school years in their program.

Selected cadets will be permitted to take flying at the expense of the U.S. Government.

Students entering the Army ROTC program must take leadership laboratory each quarter. Non-ROTC students may take regular courses for credit.

### 105 Basic Map Reading and Orienteering (2)

Fundamental map reading and orienteering techniques with emphasis on development of land navigation skills through practical exercises in field.

### 106 Military History I (2)

Prereq: perm. Study of factors contributing to development of military art through selected campaigns and battles from classical period up to WWI. Emphasis on development and application of principles of war as recognized by the U.S.

### 107 Introduction to Tactics (2)

Prereq: fr and soph only. Small unit tactics, emphasizing importance of organization of basic military teams and their employment. Meets 2 hrs each wk.

### 202 The U.S. Defense Department Organization (2)

Prereq: perm. Identifies and relates elements and instruments of national power to national policy and national programs and organizations utilized in support of national objectives. Defines military services as tools of national security and provides orientation of their missions and employment in support of national objectives. Role of junior officer outlined in relation to his part as a field commander in support of national objectives.

### 205 Methods of Military Instruction (2)

Prereq: perm. Educational psychology and practical application of techniques in planning and presenting instruction, with emphasis on military methods. Meets 2 hrs each wk.

### 207 Military History II (2)

Prereq: perm. Analysis and evaluation of military campaigns from WWI through Vietnam. Specific campaigns and battles studied with emphasis on application and influence of principles of war. Included also is an historical study of how national objectives are translated into national strategy and employment of Army in support of those objectives and strategies as influenced by principles of war.

### 210A Leadership Laboratory (0)

Prereq: enrollment in military science. Development of proficiency and leadership potential by participation in planning and conducting leadership-oriented operations. Emphasis on experience and development of management, communication and leadership skills to include acceptance of leader responsibility. Meets 1 hr each wk per qtr. Required of all military science cadets.

### 230 Basic Army ROTC Summer Camp (0)

Prereq: enrollment in 2-yr program. This 6-wk training camp covers: methods of instruction, physical training, marksmanship, safety and survival training, ranger training, tactics of small military units, practical application of command and leadership, communication, competitive athletics, map and compass reading, orienteering competition, organization of selected military units, characteristics of weapons, patrol (day and night) operations, management of small units, staff management and operations, rappelling, first aid, field expediency, discipline, followship and movement operations and control. Applications acceptable from sophs and jrs, srs and selected grad students with 2 academic yrs remaining in their schooling. Conducted at Fort Knox, Ky. during a 6-wk period in June and July. Mandatory

for entrance to 2-yr Army ROTC program. Participants paid by Army.

### 302 Principles of Military Leadership (2)

Prereq: perm. Principles and techniques of leadership including basic qualities of the leader and special problems of military leadership. Psychological, physiological and sociological factors affecting human behavior and proven techniques of military leadership. Meets 2 hrs each wk.

### 303 Platoon Level Tactics (2)

Prereq: perm. Operational methods, leadership techniques and communications systems used in tactical employment of small units. Meets 2 hrs each wk.

### 304 Advanced Map Reading (2)

Prereq: MSc 105 or equivalent. Continuation of MSc 105. Advanced map reading/land navigation and aerial photograph interpretation techniques as applied to military maps and aerial photographs. Includes 4-6 hrs of practical exercises in field situation.

### 330 Advanced Army ROTC Summer Camp (0)

Prereq: 303. (summer) 6-wk field training session conducted at an army installation; normally scheduled between jr and sr yrs. Includes instruction and application of leadership and military techniques, and performance evaluation of cadets.

### 401 Combined Unit Tactics (2)

Prereq: perm. Continuation of 303; staff functions of intelligence and operations, and combining of staff actions, command decisions and tactical employment of units. Decision making and translating decisions into plans and orders emphasized. Meets 2 hrs each wk.

### 402 Leadership and Management III (2)

Prereq: perm. The United States in contemporary world scene, with emphasis on its impact on leadership and management problems of military services. Meets 2 hrs each wk.

### 403 Advanced Leadership and Management (2)

Prereq: perm. Orientation of military justice system as outlined within U.S. Uniform Code of Military Justice. Examines military law, discipline, behavior modification and nonpunitive actions as management tools of military leader.

## MUSIC

Applied Music

Music Education

Music History and Literature

Music Theory and Composition

## Music Therapy

## Independent Studies in Music

### APPLIED MUSIC

Fee for private instruction for all applied music (piano, voice, organ, strings, woodwinds, brass, percussion), \$12 per quarter hour.

Note: A description of the proficiency requirements for applied music may be obtained from the School of Music.

### 090 Performance Laboratory (0)

Required of all undergraduate music majors and students enrolled in 101-102-103 each qtr.

### 141 Class Piano (2)

Prereq: perm; music majors only. *M. Stewart.*

### 141B Class Piano (2)

Prereq: perm; for nonmusic majors.

### 142 Class Piano (2)

Prereq: perm; 141; music majors only. *M. Stewart.* Continuation of 141.

### 142B Class Piano (2)

Prereq: perm; 141B; for nonmusic majors. Continuation of 141B.

### 143 Class Piano (2)

Prereq: perm; 142; music majors only. *M. Stewart.* Continuation of 141 and 142.

### 143B Class Piano (2)

Prereq: perm; 142B; for nonmusic majors. Continuation of 142B.

### 147 Class Voice (1)

Prereq: perm. For students enrolling in beginning voice.

### 148 Class Voice (1)

Prereq: 147. Continuation of 147. See 147 for description.

### 149 Class Voice (1)

Prereq: 148. Continuation of 147 and 148. See 147 for description.

### 241 Class Piano (2)

Prereq: music majors only; 143 with minimum grade of C; perm. *M. Stewart.*

### 241B Class Piano (2)

Prereq: 143B or perm; for nonmusic majors.

### 242 Class Piano (2)

Prereq: 241 or perm; for music majors only. *M. Stewart.* Continuation of 241.

### 242B Class Piano (2)

Prereq: 241B or perm; for nonmusic majors. Continuation of 241B.

**243 Class Piano (2)**

Prereq: 242 or perm; for music majors only. *M. Stewart*. Continuation of 241 and 242.

**243B Class Piano (2)**

Prereq: 242B or perm; for nonmusic majors. Continuation of 242B.

**244A Marching Band (1)**

Prereq: perm (audition). *R. Socciarelli*.

**244B Wind Ensemble (1)**

Prereq: perm (audition). *R. Socciarelli*.

**244C Symphonic Band (1)**

Prereq: perm (audition). *R. Socciarelli*.

**245 University Chorus (1)**

Prereq: perm (audition). *C. Powell*.

**246 Orchestra (1)**

Prereq: perm (audition). *A. Gnam*.

**249 Brass Choir (1)**

Prereq: perm (audition). *W. Brophy*.

**250 University Singers (1)**

Prereq: perm (audition). *C. Powell*.

**250B Ohio University Chorale (1)**

Prereq: perm (audition).

**251 Chamber Orchestra (1)**

Prereq: perm (audition). *A. Gnam*.

**252 Opera Workshop (1)**

Prereq: perm (audition). *I. Zook*.

**253 Jazz Ensemble (1)**

Prereq: perm (audition). *E. Bastin*.

**254 Chamber Music (1)**

Prereq: perm. Participation in playing of standard chamber literature.

**255 Trombone Choir (1)**

Prereq: perm. *R. Smith*.

**256 Percussion Ensemble (1)**

Prereq: perm. *G. Remonko*.

**340 Voice (1-6)**

Prereq: perm. *N. Beebe*, *M. Stephenson*, *I. Zook*.

**341 Piano (1-6)**

Prereq: perm. *E. Jennings*, *M. Stewart*, *R. Syracuse*.

**342 Harp (1-6)**

Prereq: perm. *L. Jennings*.

**343 Organ (1-6)**

Prereq: perm. *E. Wickstrom*.

**344 Violin (1-6)**

Prereq: perm. *H. Beebe*.

**345 Viola (1-6)**

Prereq: perm. *H. Beebe*.

**346 Violoncello (1-6)**

Prereq: perm. *L. Conkling*.

**347 Double Bass (1-6)**

Prereq: perm. *C. Thompson*.

**348 Flute (1-6)**

Prereq: perm. *K. Borkowski*.

**349 Oboe (1-6)**

Prereq: perm. *A. Gnam*.

**350 Bassoon (1-6)**

Prereq: perm. *H. Robison*.

**351 Clarinet (1-6)**

Prereq: perm. *F. Borkowski*, *D. Lewis*, *H. Robison*.

**352 Saxophone (1-6)**

Prereq: perm. *A. Gnam*, *D. Lewis*.

**353 Trumpet (1-6)**

Prereq: perm. *E. Bastin*.

**354 French Horn (1-6)**

Prereq: perm. *W. Brophy*.

**355 Baritone Horn (1-6)**

Prereq: perm. *R. Fink*, *R. Smith*.

**356 Trombone (1-6)**

Prereq: perm. *R. Fink*, *R. Smith*.

**357 Tuba (1-6)**

Prereq: perm. *R. Fink*, *R. Smith*.

**358 Percussion (1-6)**

Prereq: perm. *G. Remonko*.

**451 Accompanying (1, max 3)**

*E. Jennings*. Basic problems in accompanying vocalists and instrumentalists — rehearsal techniques, ensemble, pedaling, balance, etc. May be repeated.

**452 Piano Pedagogy (2)**

Presentation of various teaching methods, techniques and repertoire. Selection of teaching materials with general knowledge of various levels of ability and analysis of basic concepts of teaching in reference to purposes or objectives.

**453 Piano Pedagogy (2)**

Prereq: 452. Continuation of 452. See 452 for description.

**454 Piano Pedagogy (2)**

Prereq: 453. Continuation of 452 and 453. See 452 for description.

**455 Conducting (3)**

Prereq: 203, 205. *W. Brophy, C. Powell*. Basic beat patterns, technique of baton and use of left hand. Experience in conducting choral and small instrumental ensembles in works suitable for school groups.

**456 Choral Conducting (3)**

Prereq: 206, 455. *C. Powell*. Specialized conducting techniques for choral groups, including experience in conducting works suitable for high school and college groups.

**457 Instrumental Conducting (3)**

Prereq: 206, 455. *R. Socciarelli*. Experience in conducting from full score; includes band and orchestral works, suitable for high school groups.

**458 Solo Repertoire of Orchestral Instruments (1)**

Prereq: 323, perm. Survey of student's major performance instrument literature.

**459 Orchestral Instrument Pedagogy (2)**

Prereq: perm. Teaching techniques of orchestral instruments and use of selected materials for various levels of ability. Includes practical experience in teaching.

**497 Recital (0)**

Prereq: perm, jr and sr only. For jr or sr planning to present a public recital and wanting recital recorded on his transcript.

## MUSIC EDUCATION

**160 Music Fundamentals (3)**

*P. Gagliano, J. Scholten*. For elementary education majors only.

**161 Music for the Classroom Teacher (3)**

Prereq: 160 with minimum grade of C. *P. Gagliano, J. Scholten*. Methods of teaching elementary music. For elementary education majors only.

**261 String Methods and Materials (2, max 6)**

Prereq: 103, perm. Instruction in stringed instruments with emphasis on teaching techniques, methods and materials.

**263 Wind and Percussion Methods and Materials (2, max 12)**

Prereq: 103, perm. Instruction in wind and percussion instruments with emphasis on teaching techniques, methods and materials.

**363 Methods and Materials of Instrumental Music (3)**

Prereq: 203, 205. Study of procedures for organization, implementation and administration of instrumental music and survey of materials used in teaching instrumental music in public schools.

**364 Secondary School Vocal Techniques and Materials (3)**

Prereq: 203, 205, 206, 455. (winter) *C. Powell*. Literature and rehearsal techniques for high school choral groups.

**365 Secondary School Vocal Techniques and Materials (3)**

Prereq: 364. (spring) Continuation of 364. See 364 for description.

**366 Teaching of Music in the Elementary Grades (3)**

Prereq: 203, 205, 206. (winter) *J. Scholten*. Materials and methods for elementary music. For music majors only.

**367 Materials and Trends in Elementary Music Teaching (3)**

Prereq: 366. (spring) Continuation of 366.

**463 Scoring for Bands (3)**

Prereq: 203, 304. (spring) *C. Minelli*. Writing techniques for marching and concert bands.

**464 Marching Band Techniques (3)**

Prereq: sr rank. (fall) *R. Socciarelli*. Techniques for preparation of high school and college marching band performance.

**468 General Music in the Junior High School (3)**

Prereq: 203, 205, 206, perm. (fall) *P. Gagliano*. Materials and methods; listening program; changing voice.

**476A Music Clinic-Workshop (1-4)**

Prereq: sr rank. (summer) May be repeated for credit, but credit may be applied to degree electives only once.

**476B Elementary Music Workshop (1-4)**

Prereq: sr rank. (summer) May be repeated for credit, but credit may be applied to degree electives only once.

**476C Chamber Music Institute (1-4)**

Prereq: sr rank. (summer)

## MUSIC HISTORY AND LITERATURE

**120 Introduction to Music Literature (2)**

Prereq: for nonmusic major. *E. Wickstrom*. Development of listening skills for understanding elements of musical style in historical perspective and significance of music as a fine art.

**121 Introduction to Baroque and Classic Music (2)**

Prereq: 120 or perm, for nonmusic majors. (fall) Selected works from music of Baroque and Classic periods.

**122 Introduction to the Music of the Romantic Period (2)**

Prereq: 120 or perm, for nonmusic majors. (winter) Selected works from music of Romantic period.

**123 Introduction to 20th Century Music (2)**

Prereq: 120 or perm, for nonmusic majors. (spring) Selected works from music of 20th century.

**321 History and Literature of Music (3)**

Prereq: 103. *R. Wetzel*. History of music with survey of musical literature to 1450.

**322 History and Literature of Music (3)**

Prereq: 321. History of music with survey of musical literature, 1450-1720.

**323 History and Literature of Music (3)**

Prereq: 322. History of music with survey of musical literature, 1720 to present.

**421A The Literature of Vocal Music (3)**

Prereq: 323. (fall, 1975).

**421B The Literature of Piano Music (3)**

Prereq: 323. (winter, 1976).

**421C The Literature of Chamber Music (3)**

Prereq: 323. (spring, 1976).

**421D The Literature of Orchestral Music (3)**

Prereq: 323. (fall, 1976).

**421E The Literature of Organ Music (3)**

Prereq: 323. (winter, 1977).

**421F The Literature of Opera (3)**

Prereq: 323. (spring, 1977)

## MUSIC THEORY AND COMPOSITION

**101 Music Theory (3)**

Prereq: music theory placement examination; music majors only. *S. Kaneshige, J. Stewart*. Melodic, harmonic and rhythmic principles of music and its notation. 5 days per wk.

**101A Music Theory (3)**

Prereq: for nonmusic majors only. *L. Kleen*. Melodic, harmonic and rhythmic principles of music and its notation. 5 days per wk.

**102 Music Theory (3)**

Prereq: 101. Continuation of 101. See 101 for description.

**102A Music Theory (3)**

Prereq: 101A. Continuation of 101A. See 101A for description.

**103 Music Theory (3)**

Prereq: 102. Continuation of 101 and 102. See 101 for description.

**103A Music Theory (3)**

Prereq: 102A. Continuation of 102A. See 102A for description.

**201 Harmony (3)**

Prereq: music majors only, 103 (minimum grade of C). *D. Lewis, J. Stewart*. Harmonic and contrapuntal practices of 18th, 19th and 20th centuries, including analysis and composition in smaller forms.

**202 Harmony (3)**

Prereq: 201. Continuation of 201. See 201 for description.

**203 Harmony (3)**

Prereq: 202. Continuation of 201 and 202. See 201 for description.

**204 Dictation and Sight Singing (3)**

Prereq: music majors only, 103 (minimum grade of C or perm). *D. Lewis, S. Kaneshige*. Should be taken concurrently with 201.

**205 Dictation and Sight Singing (3)**

Prereq: 204 with a minimum grade of C. Continuation of 204. See 204 for description.

**206 Analysis and Form (3)**

Prereq: 202. (spring) *D. Lewis, S. Kaneshige*. Harmonic and structural analysis of larger forms. Should be taken concurrently with 203. 5 days per wk.

**304 Instrumentation (3)**

Prereq: 203. (fall) *C. Minelli*. Technical characteristics of instruments of band and orchestra. Arranging for small ensembles.

**305 Orchestration (3)**

Prereq: 203. (winter) Scoring for instrumental ensembles with emphasis on intra-and-cross choir scoring. Writing of transcriptions and score reductions.

**306 Orchestration (3)**

Prereq: 305. (spring) Continuation of 305. See 305 for description.

**310 Composition (2)**

Prereq: 203, 205, 206. Introduction to 20th century compositional techniques. Writing smaller compositions.

**311 Composition (2)**

Prereq: 310. Continuation of 310. See 310 for description.

**312 Composition (2)**

Prereq: 311. Continuation of 310 and 311. See 310 for description.

**401 Keyboard Harmony (3)**

Prereq: 203. *R. Syracuse*. Concentration on functional aspects of piano playing: sight reading, accompanying, transposition, harmonization of melodies, improvisation, keyboard harmony.

**402 Styles I (3)**

Prereq: 203, 205, 206 with minimum grade of C in each. *S. Hall*. Analysis of 15th century music.

**403 Styles II (3)**

Prereq: 203, 205, 206 with minimum grade of C in each. *S. Hall*. Analysis of post romantic music.

**404 Styles III (3)**

Prereq: 403. *S. Hall*. Analysis of 20th century music.

**405 Jazz Harmony (2-3)**

Prereq: 203, 205, perm. keyboard skills as determined by instructor. *D. Lewis*. Harmonic vocabulary, notational systems and chord progressions in traditional jazz.

**406 Fundamentals of Electronic Music Composition (2)**

Prereq: 103, perm. Techniques, theories and esthetics of electronic music. Development of skills as they apply to voltage-controlled synthesizer and tape splicing and manipulation techniques.

**407 Counterpoint I (3)**

Prereq: 203, 205. (fall) Analysis and composition in sacred style of 16th and 17th centuries.

**408 Counterpoint II (3)**

Prereq: 407. (winter) Analysis and composition of 18th century contrapuntal forms.

**409 Counterpoint III (3)**

Prereq: 203, 205. (spring) Analysis and composition of 19th and early 20th century contrapuntal styles.

**410 Composition (2)**

Prereq: 312 (406 for electronic composition). Original composition of either notational or electronic music. Investigation of experimental compositional techniques.

**411 Composition (2)**

Prereq: 410. Continuation of 410. See 410 for description.

**412 Composition (2)**

Prereq: 411. Continuation of 410 and 411. See 410 for description.

**MUSIC THERAPY****181 Introduction to Music in Therapy (2)**

(fall, spring) Introduction to music therapy through assigned reading, classroom lectures and clinical observation.

**281 Social and Recreational Instruments and Materials (3)**

Prereq: perm. (fall, winter) Study of fretted instruments and music activities to accomplish therapeutic goals.

**380 Clinical Experience I (2)**

Prereq: 181. Selected field experience in approved mental health facilities. Credit without grade upon satisfactory completion.

**381 Music Therapy I: Background of Music Therapy (3)**

Prereq: 181, 281, 203, 205. (fall) Historical review and survey of current trends in music therapy.

**382 Music Therapy II: The Influence of Music on Behavior (3)**

Prereq: 381, perm. (winter) Theoretical bases for influence of music on behavior.

**383 Music Therapy III: Problems and Procedures (3)**

Prereq: 382, perm. (spring)

**480 Clinical Experience II (4)**

Prereq: 489, sr rank in therapy. Six months as full-time music therapy intern at approved hospital beginning after completion of sr yr in music therapy.

**481 Psychological Foundations of Music I (3)**

Prereq: 203, 205, 5 hrs of psychology. (spring) Investigation of research methods and their application to behavioral musical responses.

**482 Psychological Foundations of Music II (3)**

Prereq: 481. (winter) Basic study of acoustics, ear and hearing and psycho-socio-physiological process involved in musical behavior.

**489 Senior Practicum in Music Therapy (1-3)**

Prereq: 382 and perm. Field work in music therapy paired with individual and seminar supervision.

**INDEPENDENT STUDIES  
IN MUSIC****491 Acoustics for Musicians (3)**

Prereq: 203, 205, perm. *R. Fink*. Nature of vibration and characteristics of sound waves. Room, concert hall and stadium acoustics and vibration of strings, rods, plates and air columns studied as they apply to music teaching and performance.

**492 Acoustics for Musicians (3)**

Prereq: 491. *R. Fink*. Continuation of 491. Temperament, intonation, psychology of music and electronic analyzing, recording, reproducing and synthesizing of sound.

**498 Independent Projects (1-6)**

Prereq: perm.

**499 Independent Readings in Music (1-12)**

Prereq: perm.

## **NURSING**

### **(Associate degree program)**

Ohio University-Zanesville offers a two-year nursing program. Students who complete the program will receive an associate in applied science degree in nursing and will be eligible to write the State Board Examination for Registered Nurse.

**101 Nursing I (5)**

Prereq: admission to the OUZ Nursing Education Program. Develop basic nursing skills and use of problem-solving approach to enable individual to maintain or regain normal activities of daily living. Medical asepsis and safety, nurse-patient activity, vital signs, normal nutrition and elimination, and basic interviewing techniques presented.

**102 Nursing II (5)**

Prereq: 2.0 average or better in 101. Continued development of basic nursing skills. Surgical asepsis, maintenance of activities of daily living, therapeutic interviewing techniques, terminal life experience and medication administration considered.

**103 Nursing III-A (5)**

Prereq: 2.0 average or better in 102. Study nursing care approaches for pathophysiologic conditions of respiratory, gastro-intestinal and endocrine systems. Nursing responsibilities for diagnostic tests, medical-surgical treatment, pharmacology and dietary modifications as applicable to these systems included.

**104 Nursing III-B (6)**

Prereq: 2.0 average or better in 103. Developing nursing care approaches for pathophysiologic conditions of cardiovascular system. Offers an opportunity for continuity of care in community hospitals and health agencies.

**201 Nursing IV (6)**

Family-life cycle presented as broad concept with emphasis on nursing care of maternity patient and normal newborn infant. Pregnancy viewed as a natural and normal process; however, specific deviations will be presented. Learning opportunities offered in hospital setting, doctor's offices and in other community facilities.

**202 Nursing V (6)**

Child considered from neonatal period through adolescence with emphasis on his or her place

in family, on family unit as part of the community. Nursing responsibilities and application of scientific principles as applied to child in hospital, clinic and home identified and adapted to needs of each age group. Although major concentration placed on study of individual through adolescence, specific medical-surgical nursing situations which affect adults and children similarly will be included.

**203 Nursing VI (6)**

Assist nursing students to develop better understanding of behavior disorders and mental illness, precipitating factors, prevention, treatment modalities and of individuals who have difficulty in adapting to stress of everyday life. Emphasis placed on potential therapeutic role nurse can make in assessment, intervention and in providing support in various environments.

**204 Nursing VII (6)**

One of a series of courses dealing with care of medical-surgical patients. Student has opportunity to develop understanding of physical, mental, emotional and spiritual components of health and disease. Learning experiences selected that permit student to learn preventive, rehabilitative and curative aspects of disease. Through use of various resources, students will observe and/or care for patients of varying age levels who have common health deviations of reproductive, genitourinary and sensory systems.

**205 Nursing VIII (9)**

Advanced medical-surgical nursing, dealing with care of adults with disorders of nervous and musculoskeletal systems. In addition, emphasis placed on nurse's responsibility in world health problems, emergency or disaster situations.

**206 Nursing IX (3)**

Exploration of concerns of nursing profession past, present and future. Relationships of technical nurse to health professions and community considered. Future personal development of individual technical nurse discussed.

## **NURSING**

### **(Baccalaureate program)**

**300 Concepts of Health Care I (5)**

Focuses on levels of wellness and maintenance of health in individuals and groups.

**302 Concepts of Health Care VII (5)**

Covers transition from technical to professional level of practice.

**320 Concepts of Health Care II (5)**

Focuses on the restoration of health or reintegration of health.



**330 Concepts of Health Care III (5)**

Deals with man's adaptive process to stress and strain.

**340 Concepts of Health Care IV (5)**

Family-centered community nursing.

**360 Concepts of Health Care V (5)**

Focuses on assurance of quality of nursing care.

**380 Concepts in Health Care VI (5)**

Advanced concepts in clinical nursing.

**390 Concepts in Health Care XIV (5)**

Teaching strategies in meeting individual and group learning needs.

**395 Concepts in Health Care XVII (5)**

Covers transactions in gerontological nursing.

**400 Concepts in Health Care VIII (5)**

Coping with stress and complex emotional and mental behaviors.

**452 Concepts in Health Care IX (5)**

Focuses on the dynamics of nursing leadership.

**454 Concepts of Health Care X (5)**

Focuses on the emergency and intensive care nursing.

**456 Concepts in Health Care XI (5)**

Nursing care of people with long-term handicapping conditions.

**458 Concepts in Health Care XII (5)**

Focuses on the impact of illness on the individual.

**460 Concepts in Health Care XIII (5)**

Principles of nursing administration in the community hospital and nursing home.

**464 Concepts in Health Care XV (5)**

Legal aspects of nursing.

**466 Concepts of Health Care XVI (5)**

Advanced techniques and practices of community nursing.

**470 Concepts in Health Care XVIII (5)**

Aspects of rural community nursing.

**490 Concepts in Health Care XIX (1-5)**

Independent study course.

## OHIO PROGRAM OF INTENSIVE ENGLISH

Credit hours listed for OPIE 40, 45, 50, 60 are not applicable to degree requirements. For English for non-native speakers applicable to degree requirements, see English 160.

**40 Intensive English as a Foreign Language (15)**

Full-time intensive study of English as foreign language for students beginning at elementary level. Normally followed by 45, 6 classroom practice and recitation hrs daily. Primary emphasis is on developing mastery of spoken English.

**45 Intensive English as a Foreign Language (15)**

Prereq: 40. Full-time intensive study of English as foreign language. Follows 40 to constitute a 20-week intensive course. 5 hrs of classroom practice and recitation daily. Practice of spoken English continues, but primary emphasis shifts to mastery of usage of written English. In addition to scheduled EFL class hrs, the student devotes up to 6-8 hrs per wk to auditing appropriate University classes.

**50 Intensive English as a Foreign Language (15)**

Prereq: intermediate proficiency level. Full-time intensive study of English as foreign language for students beginning at intermediate level. Not a sequence with either 40 or 45. 5 hours of classroom practice and recitation daily. Emphasis on both spoken and written English usage. In addition to scheduled EFL class hrs, student devotes up to 6-8 hrs per wk to auditing appropriate University classes.

**60 Supplemental English as a Foreign Language (8)**

Prereq: advanced proficiency level. Semi-intensive supplemental study of English as foreign language at advanced level for students enrolled in a part-time academic program. 2 hrs of classroom practice and recitation daily. Classroom activity includes both spoken and written English usage, but emphasis is on written language practice. May follow either 45 or 50.

## PHILOSOPHY

The major requirement for the AB degree consists of a minimum of 40 hours, including 310, 312, 320 and at least three courses numbered above 400. Philosophy majors may not count toward their major requirement more than 12 hours of credit in philosophy courses taken on a pass/fail basis.

Students are advised to begin the study of philosophy with a course at the 100 or 200 level. Phil 101 is a general survey. The other courses at the 100 and 200 level introduce the student to philosophy by applying it to special fields.

**101 Fundamentals of Philosophy (5)**

Survey of selected basic problems, concepts and methods in philosophy.

**120 Principles of Reasoning (4)**

Prereq: not open to those who have had former

102. Use of evidence in establishing reliable conclusions.

**130 Introduction to Ethics (4)**

Prereq: not open to those who have had former 103. Discussion of classic and/or modern philosophical views of human values, ideals and morality. Provides an introductory survey of some of the main problems, concepts and results of ethics including selected philosophers of the past and present.

**216 Philosophy of Science Survey (3)**

*W. Ruchti.* Nontechnical survey of types, testing and credibility of hypotheses; methods of experimental inquiry; measurement; laws, theories and their role in explanation, concept formation.

**232 Philosophy of Art (3)**

*G. Blocker.* Conceptual analysis of common assumptions, attitudes, theories and ideas about the arts, their criticism and appreciation.

**240 Social and Political Philosophy (4)**

*E. Smith.* Philosophical analysis of political and social theories and problems.

**250 Philosophy of Mind (4)**

*R. Trevas.* Mind-body problem; concept of self; man-machine relation; problem of other minds.

**260 Philosophy of Religion (4)**

*S. Grean.* Problems in nature of religion, existence and nature of God, problem of evil, immortality and religious language.

**301 Introduction (3)**

Prereq: not open to those who have had 101. Analysis of typical philosophical problems arising in study of nature, society and religion for purpose of developing a thoughtful and consistent intellectual perspective.

**310 History of Western Philosophy: Ancient (5)**

Significant ideas of representative Greek and Roman philosophers.

**311 History of Western Philosophy: Medieval and Renaissance (5)**

*J. Perotti.* Augustine to Bruno and Campanella.

**312 History of Western Philosophy: Descartes to Hume (5)**

*R. Wieman.*

**314 19th Century European Philosophy (4)**

Prereq: not open to those who have had former 439. *A. Mickunas.* Subjects selected from French, German and British philosophers of 19th century.

**315 American Philosophy (4)**

Prereq: 3 hrs above 200. Not open to those who have had former 313. Begins with transcendentalism and includes pragmatism, naturalism and idealism.

**320 Symbolic Logic I (5)**

*R. Butrick.* Techniques of modern symbolic logic.

**330 Ethics (5)**

*R. Saydah.* In-depth study focusing on a specific philosopher, or on a type of ethical or value theory. Topics will vary with instructor.

**350 Philosophy of Culture (5)**

*R. Saydah.* Philosophical studies of man as a culture-creating being.

**351 Philosophy of Language (4)**

Prereq: 6 hrs, including 120 or 320. *E. Smith.* Theories of meaning and reference and their philosophical significance, relations of meaning to verification and truth and relationship between language and concepts.

**358 Existentialism (4)**

Prereq: 9 hrs. *D. Stewart.* Existential thought from Kierkegaard to Camus stressing such themes as freedom, existence, despair, authenticity, alienation, death and revolt against system.

**361 Old Testament (5)**

*D. Borchert.* Background and development of Old Testament; its philosophical, moral and religious significance.

**362 New Testament (5)**

*D. Borchert.* Background and development of New Testament; philosophical, moral and religious significance of beliefs of Jesus, Paul and the early Church.

**370 History of Religions: India (5)**

*G. Weckman.* Vedic religion, Hinduism, Jainism.

**371 History of Religions: Southeast Asia, China and Japan (5)**

*H. Cheng.* Buddhism, Taoism, Confucianism, Shinto.

**372 History of Religions: Near East (5)**

*G. Weckman.* Zoroastrianism, Mesopotamian and Greek religions and Islam.

**414 Analytic Philosophy (5)**

Prereq: 4 philosophy courses and perm prior to registration. *E. Smith.* Selected topics in contemporary Anglo-American philosophy from Moore to Wisdom.

**415 Contemporary Philosophical Problems (5)**

Prereq: 2 courses above 400. Issues from current journal literature.

**416 Philosophy of Science (5)**

Prereq: 216 and 320. *W. Ruchti.* Selected problems in logic and methodology of sciences.

**418 Plato (5)**

Prereq: 4 philosophy courses, including 310. *R. Wieman.* (alternate yrs).

**419 Aristotle (5)**

Prereq: 4 philosophy courses, including 310. (alternate yrs).

**420 Symbolic Logic II (5)**

Prereq: 320. *R. Butrick*. Informal and formal deductive systems, logic of relations, class logic.

**421 Proof Theory (5)**

Prereq: 320 or equiv. *R. Butrick, W. Ruchti*. (offered on demand) Syntax and semantics of formal theories.

**422 Computability (5)**

*R. Butrick, W. Ruchti*. (offered on demand) Algorithms, recursive functions, Turing machines, decidability.

**423 Modal and Many Valued Logics (5)**

Prereq: 320. *M. Corrado*. (offered on demand) N-valued logics, modal logic.

**424 Foundation Theory (5)**

Prereq: 320 or equiv. *R. Butrick, W. Ruchti*. (offered on demand) Alternative bases for developing formal theories.

**428 Continental Rationalism (5)**

Prereq: 4 philosophy courses, including 312. *R. Trevas*. (alternate yrs) Descartes, Spinoza, Leibniz.

**429 British Empiricism (5)**

Prereq: 4 philosophy courses, including 312. *R. Trevas*. (alternate yrs) Locke, Berkeley, Hume.

**430 Contemporary Ethical Theory (5)**

Prereq: 4 philosophy courses, including 130 or 330. *R. Saydah*. Significant current literature in selected topics of moral philosophy.

**431 History of Esthetic Theory (5)**

Prereq: 4 philosophy courses. *G. Blocker*. Readings from Plato to Dewey and relation of these theories to selected arts and recent criticism.

**432 Problems in Esthetics (5)**

Prereq: 9 hrs philosophy, literature or art. *G. Blocker*. For students interested in the arts but not necessarily in issues primarily of interest to philosophers. Writings drawn from modern sources on theory of art, esthetic criticism, creativity, truth in art, esthetic value.

**438 Kant (5)**

Prereq: 4 philosophy courses, including 312. *D. Stewart*. (alternate yrs) Kant's *Critique of Pure Reason* with attention given to Kant's ethical theory.

**440 Contemporary Social Philosophy (5)**

Prereq: 4 philosophy courses, or 2 courses and 9 hrs of social science. (alternate yrs)

**442 Philosophy of Law (5)**

Prereq: 3 philosophy courses or perm. *R. Saydah, E. Smith*. Philosophical analysis of nature and justification of legal systems including examination of concepts of just laws and just legal systems.

**444 Philosophy of Marxism (5)**

Prereq: 4 philosophy courses. *D. Borchert*. Philosophical inquiry into classical and contemporary Marxist thought stressing Marx, Engels, Lenin, Stalin, Mao and several contemporary Marxists such as the "Praxis group" of Yugoslavia.

**448 Pragmatism (5)**

Prereq: 4 philosophy courses. (alternate yrs) Peirce, James, Dewey.

**450 Theory of Knowledge (5)**

Prereq: 4 philosophy courses, including 312. *D. Lincicome*. Critical examination of various views of what knowledge is and how it is attained.

**451 Metaphysics (5)**

Prereq: 4 philosophy courses, including 310 or 312. *M. Corrado*. Basic alternative conceptions of world, and such topics as nature of substance, causality, self, freedom, space and time.

**452 Myth and Symbolism (5)**

Prereq: 4 philosophy courses. *G. Weckman*. Characteristic expressions of thought in primitive societies and theories concerning primitive mentality.

**458 Contemporary German Philosophy (5)**

Prereq: 4 philosophy courses, including 358 and 468. *A. Mickunas*. (alternate years) Analysis of themes in Husserl, Heidegger, Scheler, Hartman, Dilthey, Cassirer, Gebser and Ingarden, stressing phenomenological roots as well as new philosophic directions.

**459 Contemporary French Philosophy (5)**

Prereq: 4 philosophy courses, including 358 and 468. *D. Stewart*. (alternate years) Trends in contemporary French philosophy, stressing Sartre, Camus, Marcel, Merleau-Ponty and Ricoeur, emphasizing existential backgrounds of French thought and its adaptation of existential themes.

**460 Contemporary Religious Thought (5)**

Prereq: 4 philosophy courses. *S. Grean*. Representative thinkers such as Tillich, Buber and others.

**468 Phenomenology (5)**

Prereq: 4 philosophy courses, including 312. *A. Mickunas*. Method and philosophy of phenomenological movement from Husserl to Merleau-Ponty.

**470 Indian Philosophy (5)**

Prereq: 4 philosophy courses, including 370. Classical Hinduism.

#### 471 Buddhist Philosophy (5)

Prereq: 4 philosophy courses, including 371. *II. Cheng*. Abhidharmika, Madhyamika, Yogacara, Zen and other philosophical doctrines of Buddhism.

#### 475 Chinese Philosophy (5)

Prereq: 4 philosophy courses, including 371. *II. Cheng*. Major Chinese philosophers and schools of thought from earliest times to present day.

#### 491 Seminar in Philosophy (1-15, max 15)

Prereq: 5 philosophy courses. Selected problems.

#### 497 Independent Reading (1-9, max 12)

Prereq: perm of chairman.

## PHOTOGRAPHY

See Art.

## PHYSICS

### Physical Science

#### Physics

The minimum requirement for the AB degree with a major in physics is 36 quarter hours, including a 15-quarter-hour sequence of beginning courses terminating with 253 or 305 (Credit is not granted for both sequences.). This degree is recommended for students who (1) want a general education with emphasis on physics; (2) have plans for further education or employment in an interdisciplinary area or desire a dual major in physics and chemistry, zoology, geology, etc.; (3) want to teach physics in high school. The requirements for option (3), for example, may be met by completing the 31 hours in the physics module under the Science Modular Program in the College of Education plus five additional hours of physics courses numbered above 300.

The minimum requirement for the BS degree with a major in physics is 53 quarter hours. This must include a 15-quarter-hour sequence of beginning courses terminating with 253 or 305 (Credit is not granted for both sequences.). In addition, the following advanced courses are specifically required: 272, 273, 311, 312, 371, 372, 373, 411, 427, 428, 451, 452. The requirements in mathematics are 263A, 263B, 263C, 340, 440, 441. The Physics Department also requires 12 quarter hours of a natural science other than physics and mathematics for the BS degree.

Students preparing for careers in physics in industrial, atomic energy, space science or government laboratories or those who plan to enter

graduate study will find a recommended physics major curriculum listed under the College of Arts and Sciences Special Curricula Section. An applied physics program is also listed under that section. Students planning to enter graduate study are urged to complete the foreign language requirement in German, French or Russian. For English composition requirements, see the College of Arts and Sciences section.

Selected students may enroll in the physics tutorial program through the Honors Tutorial College.

Completion of the requirements for either the AB or BS degree program above completes the Arts and Sciences College requirement of at least 9 hours in the major at the junior-senior level.

All students interested in pursuing any of the physics programs described above should contact the chairman of the Physics Department.

## PHYSICAL SCIENCE

### 100A Science and Society (4)

Investigations of nature of science and its methods in obtaining knowledge and laws of our total environment. Seeks an understanding of basic nature of science and builds comprehension of how science is relevant to man and society. 3 lec, 1 discussion.

### 100B The Universe (3)

Prereq: designed for nonscience major with minimal mathematical background. Descriptive study of astrophysical universe. Fundamental concepts and physical principles, life cycle of stars, explanation of recent findings including pulsars, quasars and black holes, theories of cosmology describing beginning and end of our universe. Other possible topics include UFOs, space exploration and possibility of extraterrestrial life.

### 100C The Atom and its Nucleus (3)

Nonmathematical description of basic structure of atoms and nuclei with special emphasis on impact of nuclear physics on 20th-century man. Applications of modern physics in art, archaeology, medicine and social problems.

### 101 Physical World (3)

Designed for nonscience majors. Fundamental ideas of measurement, motion, energy, sound, light, electricity and magnetism and astronomy. Topics in astronomy include solar system, time, moon phases, tides, eclipses, sun and galaxies. 3 lec.

### 101L Physical World (4)

Designed for nonscience majors. Fundamental ideas of measurement, motion, energy, sound, light, electricity and magnetism and astronomy. Topics in astronomy include solar system, time, moon phases, tides, eclipses, sun and galaxies. 3 lec, 2 lab.

**102 Physical World (3)**

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of heat, nuclear physics, atomic physics and chemistry. Topics in chemistry include classification of elements, molecules, chemical reactions, solutions and large molecules, including plastics and DNA. 3 lec.

**102L Physical World (4)**

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of heat, nuclear physics, atomic physics and chemistry. Topics in chemistry include classification of elements, molecules, chemical reactions, solutions and large molecules, including plastics and DNA. 3 lec, 2 lab.

**103 Physical World (3)**

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of meteorology and geology. Topics in meteorology include atmosphere, winds, clouds, storms and weather. Topics in geology include rocks and minerals, gradation, earthquakes, continental drift and the ocean. 3 lec.

**103L Physical World (4)**

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of meteorology and geology. Topics in meteorology include atmosphere, winds, clouds, storms and weather. Topics in geology include rocks and minerals, gradation, earthquakes, continental drift and the ocean. 3 lec, 2 lab.

**197H Physical World (4)**

Prereq: 589 SAT V and Q. (fall) Designed for nonscience majors. See 101 for course description. 3 lec, 2 lab.

**198H Physical World (3)**

Prereq: 589 SAT V and Q. (winter) Designed for nonscience majors. See 102 for course description. 2 lec, 2 lab.

**199H Physical World (3)**

Prereq: 589 SAT V and Q. (spring) Designed for nonscience majors. See 103 for course description. 2 lec, 2 lab.

## PHYSICS

**201 Introduction to Physics (4)**

(fall, winter) 1st course in physics; open to students from all areas. Calculus not required. Recommended for students in liberal arts, architecture, industrial technology, botany, geology and premedicine. Lec with demonstrations and lab. Mechanics of solids and liquids, heat and thermodynamics. 3 lec, 2 lab.

**202 Introduction to Physics (4)**

Prereq: 201. (winter, spring) Continuation of 201.

Open to students from all areas. Calculus not required. Recommended for students in liberal arts, architecture, industrial technology, botany, geology and premedicine. Lec with demonstrations and lab. Includes electricity, magnetism, waves, sound and light. 3 lec, 2 lab.

**203 Introduction to Physics (4)**

Prereq: 202. (spring, fall) Continuation of 202. Open to students from all areas. Calculus not required. Recommended for students in liberal arts, architecture, industrial technology, botany, geology and premedicine. Lec with demonstrations and lab. Includes relativity, quantum, atomic and nuclear physics. 3 lec, 2 lab.

NOTE: Students who complete the 201-202-203 sequence and wish to take higher-level physics courses should take 305 in preparation for other 300-level and above courses. Credit is not given for both the 201-202-203 and 251-252-253 sequences together.

**211 The Universe (3)**

Prereq: 9 hrs of physics or physical science or perm. Descriptive study of astrophysical universe. Fundamental physical principles, evolution of stars, pulsars, quasars and recent theories of cosmology. 3 lec.

**251 General Physics (5)**

Prereq: Math 263A. Classical and modern physics with calculus and vectors. Newtonian mechanics of solids and fluids. 3 lec, 2 lab, 1 recit.

**252 General Physics (5)**

Prereq: 251 and Math 263B. Classical and modern physics with calculus and vectors. Heat and thermodynamics, electricity and magnetism. 3 lec, 2 lab, 1 recit.

**253 General Physics (5)**

Prereq: 252. Classical and modern physics with calculus and vectors. Waves (electromagnetic and mechanical), relativistic mechanics, quantum physics, particles, nuclei, atoms and molecules. 3 lec, 2 lab, 1 recit.

**254 General Physics for Electrical Engineers (5)**

Prereq: 251, Math 263B, electrical engineering students only. (winter) Classical and modern physics with calculus and vectors: thermal properties of matter, thermodynamics, wave phenomena, optics, quantum phenomena, atoms, molecules, spectra, nuclei, high energy particle physics. 3 lec, 2 lab, 1 recit.

**270 Special Studies (1-4)**

Prereq: perm. Special studies in physics under supervision of a faculty member.

**272 Electronics Laboratory (2)**

Prereq: 202 or 252 or perm. (winter) Circuit analysis, electronic measurements, semiconductor devices and instrumentation from DC to microwaves. 4 lab.

**273 Electronics Laboratory (2)**

Prereq: 202 or 252, 272 or perm. (spring) Circuit analysis, electronic measurements, semiconducting devices and instrumentation from DC to microwaves. 4 lab.

**297T Physics Tutorial (1-15)**

Prereq: Honors Tutorial College students only. (fall) 1st-yr tutorial studies in physics.

**298T Physics Tutorial (1-15)**

Prereq: Honors Tutorial College students only. (winter) 1st-yr tutorial studies in physics.

**299T Physics Tutorial (1-15)**

Prereq: Honors Tutorial College students only. (spring) 1st-yr tutorial studies in physics.

**303 Digital Computing Methods in Physics (3)**

Prereq: physics major or perm. (spring) Practical computer programming (FORTRAN, etc.) with special emphasis on problems in physics. 3 lec.

**305 Intermediate Physics (3)**

Prereq: 201, 202, 203, Math 263A. (winter) Preparation for 300 courses for students without credit for 251-252-253. Selected topics in introductory physics presented with calculus and vectors. 3 lec.

**311 Mechanics (4)**

Prereq: 253 or 305; Math 340 (may be taken concurrently). (fall) Fundamentals of physical mechanics and wave motion, using vector analysis and differential equations. Newton's laws, equilibrium, harmonic and central force motion of particles. 3 lec.

**312 Mechanics (4)**

Prereq: 311. (winter) Fundamentals of physical mechanics and wave motion, using vector analysis and differential equations. Accelerated reference frames, rigid body motion, wave motion in linear systems. 3 lec.

**313 Mechanics (2)**

Prereq: 312. (spring) Advanced topics in mechanics; Lagrangian and Hamiltonian methods. 2 lec.

**316 Contemporary Physics for Engineers (3)**

Prereq: 253 or 254 and Math 263C. Qualitative ideas and quantitative results of atomic and nuclear physics. 2 great successful theories of 20th century physics, quantum theory and relativity, presented with use of elementary calculus. 3 lec.

**323 Optics (3)**

Prereq: 253 or 305. (spring) Geometrical and physical optics. Reflection, refraction, lenses, simple aberrations; interference phenomena, scalar diffraction theory; coherence; double refraction, and selected introductory topics in modern optical techniques. 3 lec. Offered even years.

**325 Relativity (2)**

Prereq: 253 or 305. (spring) Special relativity and Lorentz transformations with applications to selected topics in mechanics, electricity and magnetism and particle physics. 2 lec. Offered odd years.

**371 Intermediate Laboratory (Electrons) (2)**

Prereq: 253 or 305. (fall) Fundamental experiments on electron. 4 lab.

**372 Intermediate Laboratory (Photons) (2)**

Prereq: 253 or 305. (winter) Speed of light, optics, lasers, x-rays and spectroscopy. 4 lab.

**373 Intermediate Laboratory (Nucleons) (2)**

Prereq: 253 or 305. (spring) Basic phenomena in atomic and nuclear physics studied with a charged particle accelerator. Proton and neutron induced reactions and scattering. Principles and operation of radiation detectors. Interaction of radiation with matter. Neutron activation analysis. 4 lab.

**397T Physics Tutorial (1-15)**

Prereq: Honors Tutorial College students only. (fall) 2nd-yr tutorial studies in physics.

**398T Physics Tutorial (1-15)**

Prereq: Honors Tutorial College students only. (winter) 2nd-yr tutorial studies in physics.

**399T Physics Tutorial (1-15)**

Prereq: Honors Tutorial College students only. (spring) 2nd-yr tutorial studies in physics.

**411 Thermodynamics (4)**

Prereq: 253 or 305, Math 340. (fall) First and second laws of thermodynamics, phase changes and entropy. Temperature, thermodynamic variables, equations of state, heat engine. 3 lec.

**412 Kinetic Theory and Statistical Mechanics (4)**

Prereq: 411. (winter) Kinetic theory, transport phenomena and introduction to classical and quantum statistics. 3 lec.

**420 Acoustics (3)**

Prereq: 312 or perm, Math 340. (spring) Vibration, sound radiation, sound propagation and practical aspects of sound. 3 lec. Offered odd years.

**427 Electricity and Magnetism (4)**

Prereq: 253 or 305; Math 340 and 440. (fall) Circuits and electric and magnetic fields. Topics on field sources, potentials, Gauss' law, polarization and dielectrics, magnetic induction. 3 lec.

**428 Electricity and Magnetism (4)**

Prereq: 427. (winter) Electric and magnetic fields. Topics on magnetic potentials, magnetic forces, Faraday law, magnetic materials, capacitance and inductance, energy of charge and current distributions, time-varying current. 3 lec.

#### 429 Electricity and Magnetism (2)

Prereq: 428. (spring) Advanced topics in electromagnetism; Maxwell's equations and electromagnetic waves. 2 lec.

#### 451 Quantum Physics (4)

Prereq: 253 or 305 or perm. (fall) Quantum effects in atomic and molecular physics; basic ideas of quantum mechanics; solutions to Schrödinger equation for simple systems. 3 lec.

#### 452 Quantum Physics (4)

Prereq: 451; Math 441 (may be taken concurrently). (winter) Quantum effects in atomic physics; identical particles and Pauli Principle; application of quantum mechanics to interpretation of atomic spectra and structure. 3 lec.

#### 453 Nuclear and Particle Physics (4)

Prereq: 452. (spring) Descriptive treatment of nuclear phenomena. Elementary theory of nucleon-nucleon interaction. Systematics of nuclear structure (shell model and collective model). Properties and interactions of fundamental particles. Devices and techniques of nuclear and high energy physics. 4 lec.

#### 470 Special Problems (1-4)

Prereq: 22 hrs. Supervised research problems of limited scope in experimental and theoretical physics.

#### 471 Solid State Physics (4)

Prereq: 452, 412. (spring) Fundamental properties of solid state of matter. 4 lec. Offered yearly on demand.

#### 475 Advanced Laboratory (1 hr per sect, max 3)

Prereq: 373 or perm. Wide selection of experiments from many areas of physics. Limit of 2 students per section. Student may select up to 3 different sections each qtr.

#### 493 Undergraduate Seminar (1)

Prereq: jr rank. Important areas of current interest in field of physics, the history of physics, development of ideas in physics and other aspects of physics.

#### 497T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (fall) 3rd-yr tutorial studies in physics.

#### 498T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (winter) 3rd-yr tutorial studies in physics.

#### 499T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (spring) 3rd-yr tutorial studies in physics.

## PSYCHOLOGY

The major in psychology consists of a minimum of eight psychology courses and a total of 45 quarter hours. Psy 101 and 121 are required. In addition, a minimum of two courses from each of the following three areas is required: (a) 173, 241, 261, 275, 304, 315, 376, 448; (b) 226, 301, 303, 307, 311, 312, 314; (c) 131, 310, 332, 333, 335, 336, 351. A minimum of nine hours must be completed at the 300 level or above. Five credits for appropriate on-the-job training related to psychology may be obtained by registering for Psy 489 with the permission of a psychology faculty member; forms supplied by the department must be submitted by the student's employer, and the credit for 489 must be approved by the student's advisor.

Students who are considering graduate work in psychology are encouraged to give special consideration to the following courses: 226, 241, 301, 303 or 304, 307, 310, 311, 312, 314, 315, 332, 333, 336, 376 and 390.

No courses taken on a pass/fail basis may apply toward fulfilling requirements for the psychology major or for professional certification in any field. This includes the five hours of freshman English plus Eng 308 as indicated on p.64.

The Department of Psychology offers a master's degree in school psychology which is approved by the Ohio State Department of Education and prepares a student for certification as a school psychologist. Recent changes in the laws governing teacher education and certification provide an alternative program of undergraduate preparation to qualify the student for admission to the graduate program in school psychology. Coursework in six education areas (including educational psychology) may be substituted for the teacher's certificate requirement. For further information contact the Coordinator for School Psychology, Department of Psychology, Porter Hall.

Total hours for a major in psychology may not exceed 60 quarter hours. Preparation in a diversity of fields is recommended: modern languages, biological sciences, mathematics, computer science and the social sciences.

Students may receive minor certification to teach social psychology at the secondary school level by meeting the following requirements: (1) completing certification requirements in a major teaching field (for complete specification of these fields contact the College of Education) and (2) completing the following courses in psychology: 121, 226, 304, 333, 336 and five hours from among 310, 311, 315, 376 or any 490 seminars in developmental or social psychology.

A limited number of students may receive major certification to teach social psychology at the secondary level by the following process: (1) completing the following courses in psychology: 101, 121, 226, 241, 275, 304, 333, 336;

## PORTUGUESE

See Foreign Languages and Literatures.

five hours from Psy 307, 311, 312 and ten hours from Psy 173, 310, 315, 332, 351, 376 or seminars in developmental or social psychology; (2) completing minor certification in some second teaching field. For further information on the program, criteria for acceptance into it and procedures for application check with the Department of Psychology or the College of Education.

### **101 General Psychology (5)**

Introduction to psychology dealing primarily with learning, sensory processes, social and clinical psychology. Four instructional options are available; additional information can be secured at University College or Psychology Department.

### **121 Elementary Statistics for the Behavioral Sciences (5)**

Prereq: 101 and Math 113 or 3 yrs h.s. mathematics. Measures of central tendency, variability, correlation and simplest tests of hypotheses.

### **131 Psychology of Adjustment (4)**

Prereq: 101. Dynamics, development and problems of human adjustment.

### **173 Child and Adolescent Psychology (5)**

Prereq: 101, not for students with EdEl 200. Behavior from infancy through adolescence.

### **226 Experimental Psychology (5)**

Prereq: 121. Training in scientific methods and techniques of modern experimental psychology with individual reports of experiments. 2 lec, 4 lab.

### **241 Behavioral Measurement (5)**

Prereq: 121. Testing and measurement; basic criteria including objectivity, reliability, validity. Methods of test construction and validation, including questionnaire construction.

### **261 Public-Service Research (5)**

Prereq: 101 and 121. Applications of psychology in business and industry.

### **275 Educational Psychology (5)**

Prereq: 101 and 121 or equiv. Psychological foundations of education, with major emphasis upon learning, transfer, motivation and evaluation.

### **301 Experimental Sensory Psychology (5)**

Prereq: 312. Sensory processes, including vision, audition, gustation, olfaction and somethesis. 2 lec, 3 lab.

### **303 Learning (5)**

Prereq: 121 and 226. Experimental investigation of classical and instrumental conditioning, discrimination learning, generalization, related phenomena.

### **304 Human Learning (5)**

Prereq: 121 and 226. Theoretical and experi-

mental investigations of learning in human beings: concept learning, problem solving, memory, motor skills and language.

### **307 Psycholinguistics (4)**

Prereq: 101, perm. How people produce, understand and acquire language; psychological and linguistic theories. Emphasis on the use of language.

### **310 Motivation (5)**

Prereq: 101 and 121. Scientific study of principles of human action with emphasis on motive, emotion and habit.

### **311 Perception (5)**

Prereq: 121 and 226. Theory and research on perception with emphasis on auditory and visual modalities. Basic process; perception of objects, space, movement and events; effects of attention, set and values; perceptual development.

### **312 Physiological Psychology (5)**

Prereq: perm. Relationships between integrated behavior and bodily processes in the intact organism.

### **314 Comparative Psychology (5)**

Prereq: perm. Behavior of lower and higher organisms leading up to man. Lec and lab.

### **315 Psychology of Human Differences (5)**

Prereq: 101 and 241. Extensive survey of quantitative studies dealing with methodology, basic principles and general findings in individual differences in intelligence, personality, interest and perception; group differences of sex, race, class and age.

### **332 Abnormal Psychology (5)**

Prereq: 101, jr or sr rank. Behavior disorders, their cause and effects on person, family and society.

### **333 Psychology of Personality (5)**

Prereq: 101, jr or sr rank. Development and organization of personality, with evaluation of major theoretical viewpoints; research on personality structure, dynamics and change.

### **335 Environmental Psychology (4)**

Prereq: 15 hrs of psychology. Study of theory and research relating to impact of physical and social environments on human cognition, behavior and mental health.

### **336 Social Psychology (5)**

Prereq: 101, jr or sr rank. Behavior of man as influenced by group membership, with emphasis on individual's interaction as basis of change of motives, attitudes and personality.

### **351 Introduction to Clinical and Counseling Psychology (5)**

Prereq: 121, 241, 332 or 333. Diagnostic and



remedial procedures and resources; professional problems, duties, skills and inter-professional relationships.

**376 Psychology of Exceptional Children (5)**

Prereq: 121, 173 or EdEl 200, jr or sr rank; not open to those having EdSp 271. Characteristics and problems of exceptional individuals; mentally retarded, mentally superior, highly creative, sensory-handicapped, culturally disadvantaged and emotionally disturbed.

**390 Research in Psychology (1-5, max 15) \***

Prereq: 226, written perm. Supervised independent research on predefined problem.

**448 Psychology of Speech (4)**

See InCo 452.

**489 Fieldwork in Psychology (1-5, max 5)**

Prereq: written perm. Independent fieldwork and on-the-job training.

**490 Seminars in Psychology (3-5)**

Prereq: dependent on seminar; perm required. Several seminars on specific topics in psychology will be offered yearly, carrying pre-determined alphabetical designations (i.e., 490A). See p.156 for exceptions. See Schedule of Classes for description each quarter.

**491 Special Problems in Psychology (1-15)**

Prereq: written perm. Independent work on special problem with any psychology professor.

**492 Special Problems—Psychology (1-15)**

Prereq: Study Abroad Program; perm.

**H496 Psychology Honors Seminar (3-5)**

Prereq: perm, admission to Honors College. Seminar on specific topics. See Schedule of Classes each qtr.

**H497 Readings in Honors Work (1-4, max 10)**

Prereq: perm.

**H498 Honors Work in Psychology (1-4, max 10)**

Prereq: perm. Preparation for H499.

**H499 Honors Work in Psychology (Thesis) (3-7, max 15)**

Prereq: perm.

complete 24 hours of 400-level quantitative methods courses. At least one four-hour course shall be in each of the following areas: data processing, operations research and statistics. The other 12 hours, subject to an advisor's approval, may be elected to gain depth in one of these three areas.

**200 Introduction to Business Data Processing (4)**

Prereq: Math 163 sequence. Role of computer in a business environment. Introductory study of equipment, applications, flow charting and FORTRAN program language. Concepts of random variables and probability distributions.

**201 Introduction to Probabilities and Statistics (4)**

Prereq: 200. Theoretical distributions, sampling, estimation (point and interval), hypothesis testing, simple regression and correlation.

**354 Introduction to Probability Theory (4)**

Prereq: Math 163 sequence. Sets, permutations, combinations. Probability: random variables, axioms, relative frequency, discrete and continuous cases, multidimensional functions, independent and conditional probabilities, moments, law of large numbers; central limit theorem, binomial, normal, Poisson and rectangular distributions.

**355 Introduction to Statistical Inference (3)**

Prereq: 201. Statistics: sampling, estimation (point and interval), tests of hypotheses, correlation.

**401 Operations Research (4)**

Prereq: 201. Applications of operations research techniques (queuing, network analysis, PERT, linear programming, Markov analysis, simulation, etc.) to improve performance of organizations.

**403 Statistical Quality Control (4)**

Prereq: 201. Application of sampling theory to quality control: in process control (i.e. control charts) and sampling inspection (i.e. attribute and variable).

**420 FORTRAN Programming (4)**

Prereq: 200. Use of computer in organizations to store, process and deliver data using FORTRAN language to solve business problems. (Formerly QM 370)

**425 Advanced FORTRAN (4)**

Prereq: 420 or equiv. Deals with application of FORTRAN programming language to problems in marketing, finance, management, accounting and economics.

**430 COBOL Programming (4)**

Prereq: 200. Introduction to business-oriented computer language COBOL.

**434 Design of Experiments (4)**

Prereq: 456 or perm. Nested, split plot; replicated designs; multi-factor experiments; compounding; fractional factorials; analysis of covariance.

## QUANTITATIVE METHODS

The quantitative methods major allows for flexibility in designing a program to suit the student's wishes.

In addition to the BBA degree requirements, a student majoring in quantitative methods must

**435 Advanced COBOL (4)**

Prereq: 430. Deals with application of COBOL programming language to problems in marketing, finance, management, accounting and economics.

**438 Nonparametric Statistics (4)**

Prereq: 456 or equiv. Appropriate statistical tests; power; asymptotic efficiency; parametric vs. non-parametric; Fisher's randomization method; run test; multi-sample tests; one-way ANOVA and two-way ANOVA; miscellaneous tests.

**441 Multivariate Analysis (4)**

Prereq: 434 or equiv. Multivariate normal distribution, chi square and T-tests, discriminant function, principle components, analysis of covariance, applications.

**445 Forecasting Business Trends (4)**

Prereq: 201 or perm. Forecasting techniques and methodologies considered as tools decisionmakers use to provide a basis for determining nature of future environments in which business will have to operate. Forecasting is the means for integrating total corporate planning with technical marketing and financial planning.

**450 Sequential Analysis (4)**

Prereq: 201 or equiv. Theory of Wald's sequential probability ratio test, problems of composite hypotheses, Barnard sequential t-test, sequential interval estimation, applications of general sequential theory to special problems.

**451 Statistical Survey Techniques (4)**

Prereq: 201 or equiv. Techniques of small sample tests applied in opinion polling, business, economics and government.

**454 Intermediate Probability Theory (4)**

Prereq: 201 or equiv. Random variables—moment generating functions and expected multi-dimensional (continuous and discrete), values, limiting theorems.

**455 Sampling Theory (4)**

Prereq: 454. Estimation, tests of hypotheses, sampling, analysis of variance, design of experiments.

**456 Regression Analysis (4)**

Prereq: 455. Time series analysis, game theory, regression and correlation analysis, and introduction to decision making.

**461 Bayesian Statistics (4)**

Prereq: 454. Probability and statistics taught from Bayesian point of view.

**480 Program Planning and Budgeting (4)**

Prereq: 401 or perm. General discussion of architecture of computer and its auxiliary storage devices; data set organizations; real time; time sharing; assembly languages; compiler programs.

**485 Simulation (4)**

Prereq: 401 or perm. Models of physical systems are constructed and manipulated by computer with application to marketing, finance and management situations.

**490 Systems and Procedures (4)**

Prereq: 420, 430 or perm. Study of detailed methods for collecting, organizing and evaluating information to improve operations of an organization.

**491 Seminar (3, 4 or 5)**

Prereq: perm. Selected topics of current interest in quantitative methods area.

**497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of quantitative methods under direction of faculty member.

## RADIO-TELEVISION

The following courses are available only on the Athens campus, for the baccalaureate degree.

**105 Introduction to Mass Communication (4)**

Development, structure, functions, processes, control and effects of mass media. 4 lec. Identical to Jour 105 and InCo 105.

**106 Introduction to Radio-Television (4)**

Organization, structure and function of broadcasting as a medium of mass communication. 4 lec.

**121 Radio Performance (2)**

Responsibilities and skills required of radio performer; practice in performance techniques for radio. 4 lab.

**200 Introduction to Production and Writing for Electronic Media (6)**

Prereq: soph rank. Integrated course in production and writing. General principles of equipment operation and crew responsibilities. Applied principles of writing for electronic media. 2 lec, 8 lab. Replaces R-TV 311, 316 and 330.

**208 Technical Bases of Radio-Television (4)**

Principles of electronic reproduction of sound and pictures; characteristics and functions of basic electronic equipment.

**270 Broadcasting and the Public (4)**

Prereq: soph rank and 200. Replaces R-TV 300. Interrelationships between broadcaster, government and public; bases for evaluation of role and significance of broadcasting in society. 4 lec.

**310 Principles of Television Production (4)**

Production aspects of television and general prin-

ciples of equipment operation and crew responsibilities. 2 lec, 4 lab. Not open to radio-television undergraduate majors for credit.

### **322 Television Performance (4)**

Prereq: 121. Advanced exercises in television performance stressing special problems of video performer. 2 lec, 4 lab.

### **355 Broadcast Programming (4)**

Prereq: jr rank. Programming concepts, resources, costs, selection and scheduling. Analysis of program in terms of unit structure, appeals and strengths. 4 lec.

### **405 Research Internship (1-9)**

Prereq: acceptance by competition only. Opportunity for students to implement and complete major research study under supervision.

### **413 Advanced Radio Production-Direction (4)**

Prereq: 200. Investigation of special problems in program development for radio. 2 lec, 4 lab.

### **417 Television Production-Direction (4)**

Prereq: 200. Analysis of theory and techniques of direction for television. Practice with creative program formats. 2 lec, 4 lab.

### **418 Advanced Television Production-Direction (4)**

Prereq: perm. (winter) Individual and group projects in development (first course) and production (second course) of a television program or series, stressing experimental techniques.

### **419 Advanced Television Production-Direction (2)**

Prereq: 418. (spring) Continuation of 418. See 418 for description.

### **431 Dramatic and Documentary Writing (4)**

Prereq: jr rank. Writing and critique of form, structure and presentation of both dramatic and non-dramatic programs and series. 4 lec.

### **432 Advanced Dramatic and Documentary Writing (4)**

Prereq: perm of instructor. Advanced writing course in which experienced student creates substantive scripts in documentary and dramatic areas.

### **440 Radio and Television in Education (4)**

Prereq: sr rank. Summary, analysis, application and evaluation of TV and radio in teaching-learning process. 4 lec.

### **441 Instructional Methods in Educational Radio-Television (4)**

Prereq: jr rank. Practical applications of television in public school classrooms. Utilization of television programs as an adjunct to instruction. Preparation of instructional units for telecasting. 2 lec, 4 lab.

### **452 TV Newsfilm Production and Editing (3)**

Prereq: jr rank and perm. Principles and practices of TV newsfilm production and editing. Identical to Jour 452.

### **453 Broadcasting Law and Regulations (4)**

Prereq: jr rank. Socio-political control of broadcasting, effect of laws, regulations and public pressures upon programming policies. 4 lec.

### **459 Audience Research (4)**

Various methods, techniques and applications of audience study in broadcasting; includes a study of current rating services. 4 lec.

### **460 Broadcast Management (4)**

Prereq: 355 or perm. Intensive overview of bases of broadcast management; includes concepts relating to structure, sources of income, expenses, audiences and legal requirements. 4 lec. Replaces R-TV 451.

### **461 Electronic Media Management I (4)**

Prereq: 460. Consideration of management problems and operations of radio, television and CATV industries with special emphasis on operational and fiscal structures. 4 lec. Replaces R-TV 450.

### **462 Electronic Media Management II (4)**

Prereq: 460 and 461 or perm. Continuation of R-TV 461 with special emphasis on personnel management and problems of promotion and sales. 4 lec. Replaces R-TV 457.

### **467 Comparative Systems of Broadcasting (4)**

Prereq: sr rank. Broadcasting systems of other countries in terms of relevant political, social, economic and cultural influences. 4 lec.

### **470 Mass Communication Theories (4)**

Readings course surveying literature in mass communication theory. Special emphasis on electronic media. 2 lec.

### **471 Effects of Mass Communications (4)**

Prereq: 470. Readings course designed to acquaint students with major areas of experimental research in individual and social effects of mass media. 2 lec.

### **479 History of Broadcasting (4)**

Prereq: jr rank. Origin of systems of radio and television communication and their development to present. 4 lec.

### **490 Internship in Broadcasting (1-12)**

Prereq: perm, srs only. Broadcast industry operation under auspices of a cooperating organization. Concurrent registration in 498 required for grade.

### **498 Special Problems (1-4, max 12)**

Prereq: written proposal and perm. Not open to graduate students.

**499 Independent Readings in Radio-Television (1-4, max 12)**

Prereq: written proposal and perm. Not open to graduate students.

The following R-TV courses are available only at the Zanesville campus for the AAS program in radio-television:

**122 Radio-Television Performance (4)**

Overview of skills and responsibilities required for performance in radio-television. 2 lec., 4 lab.

**209 Basic Radio-Television Technology (4)**

Study and understanding of the principles of radio-television. Radio-Television electronics as required by FCC regulations. 4 lec.

**210 Advanced Radio-Television Technology (4)**

Continuation of 209. 4 lec.

**211 Radio Production-Direction (4)**

Principles of basic radio production and development of criteria for evaluation of radio production. 2 lec., 4 lab.

**216 Introduction to Television Production (4)**

Elements which comprise TV production and application of these elements in laboratory situations. 2 lec., 4 lab.

**217 Advanced Television Production (4)**

Practical application of the basic techniques of TV production with emphasis on innovation and creativity. 2 lec., 4 lab.

**230 Broadcast Continuity (4)**

Principles of writing for all types of commercial and non-commercial broadcasting. 4 lec.

## REAL ESTATE TECHNOLOGY

The Chillicothe Campus of Ohio University offers a two-year real estate technology program. Students who complete the program will receive an associate in applied business degree in real estate technology.

**101 Principles and Practices I (4)**

Basic foundation course in real estate philosophy, theory, economics and administration. Covers elementary physical, legal, locational and economical characteristics of real estate, real estate markets and influences on real estate values.

**102 Principles and Practices II (4)**

Prereq: 101 or perm. Designed to build on foundation of 101. Covers property ownership and rights, real estate brokerage and construction, marketing and production, land development and

construction of buildings and effects of marketing and production systems in our economy.

**103 Real Estate Law (4)**

Prereq: 101. Includes all legal areas commonly concerned with typical real estate professional. Among topics covered are law of agency as applied to real estate brokers and salesmen, law of fixtures, estates, conveyancing of real estate, mortgages and liens, license laws of Ohio and zoning.

**201 Real Estate Appraising I (4)**

Deals with fundamentals of appraising real estate, such as: nature of real property and basic principles of its value, appraisal process, neighborhood and site analysis, building costs and depreciation capitalization and appraisal report.

**202 Real Estate Appraising II (4)**

Prereq: 201. Built on the foundation of 201. Some topics of consideration are: data program, data classification and analysis, applying to cost approach, market data approach and income approach; indicated value correlation of value indications; final estimate of value.

Process or steps leading to appraisal report and validated data basic to mature judgment as to forces heretofore mentioned, directly or interweaving, will enable appraiser to present a word portrayal of property, facts concerning that property and reasoning by which he has developed his estimate of value.

**204 Real Estate Finance (4)**

Prereq: 101. Includes institutions, methods, instruments and procedures involved in financing of real estate; nature and characteristics of mortgage loans, government influence on real estate finance and nature of mortgage market. Effects of monetary and fiscal policies on real estate financing considered.

**207 Real Estate Marketing and Management (4)**

Prereq: Mgt 300 and Mkt 310. Twofold emphasis: marketing, which deals with estate transfer, matching of supply and demand, and sale of real estate as a commodity; and management, which deals with means of obtaining highest and best use of land, achievements of maximum returns, as well as proper methods of accounting and record keeping. Student should increase his competency as a consultant in use and reuse of land in its economic, social and governmental contribution to society.

**211 Real Estate Government (4)**

Prereq: Govt 101 or Soc 101. Examines federal, state and local laws and taxes as they concern real estate.

**221 Real Estate Seminar (4)**

Prereq: 204. Special topics in real estate covered.

Areas include professionalism, ethics, salesmanship, human relations, F.H.A. and V.A. financing. The real estate office, advertising, building construction and materials, current issues and problems facing real estate professional also considered.

## **RESERVE OFFICERS TRAINING**

See Aerospace Studies or Military Science.

## **RUSSIAN**

See Foreign Languages and Literatures.

## **SECRETARIAL TECHNOLOGY, GENERAL**

Both the Chillicothe and Lancaster campuses of Ohio University offer a two-year program in general secretarial technology leading to an associate in applied business degree.

The general secretarial technology curriculum consists of a minimum of 45 hours of general and basic courses and 45 hours of technical courses.

### **111 Beginning Shorthand (3)**

Prereq: 121 or concurrent enrollment. Fundamental theory, basic principles, elementary vocabulary, beginning dictation and transcription in preparation for speed dictation and transcription in more advanced courses. 1 lec, 3 lab.

### **112 Intermediate Shorthand (3)**

Prereq: 111 or equiv and 122 or concurrent enrollment. Continuation of 111 with emphasis on vocabulary, dictation and speed building. 1 lec, 3 lab.

### **113 Advanced Shorthand (2)**

Prereq: 112 or equiv and 123 or concurrent enrollment. Continuation of 112 with development of additional speed and introduction to dictation and transcription. 1 lec, 1 lab.

### **121 Beginning Typewriting (3)**

Fundamentals of keyboard techniques and operation of typewriter; emphasis on accuracy and speed building. 1 lec, 3 lab.

### **122 Intermediate Typewriting (3)**

Prereq: 121 or equiv. Improvement of speed and accuracy; arrangement of business letters, tables and manuscripts. 1 lec, 3 lab.

### **123 Advanced Typewriting (2)**

Prereq: 122 or equiv. Continuation of 122 with practice on technical papers, business and financial reports. 1 lec, 3 lab.

### **231 Office Machines (4)**

Instruction and practice in operation of modern office machines and equipment including adding, duplicating, calculating and transcribing machines. 1 lec, 5 lab.

### **241 Dictation and Transcription I (3)**

Prereq: 113 or equiv and 123 or equiv. Some emphasis on continued speed building. Practice in integrating previously acquired shorthand skills. Emphasis on accurate notetaking and transcription with correct spelling, punctuation and format. Machine transcription included. 1 lec, 3 lab.

### **242 Dictation and Transcription II (3)**

Prereq: 241 or equiv. Emphasis on development of competency in office production (letters, memos, short reports, etc.). Machine transcription included. 1 lec, 3 lab.

### **249 Internship I (3)**

Prereq: 123, 231, 241, 252 and 242 concurrent, along with departmental approval. Practical field experience situation. Attempt made to place student in type of office that will best meet needs of individual's personal goals. 20 lab.

### **250 Seminar I (2)**

Prereq: concurrent with 249. Special topics and problems encountered in field experience discussed. Opportunity to share ideas and experiences and to find possible answers to questions arising in actual working situations.

### **252 Office Methods, Procedures and Management (4)**

Prereq: 123 and 241 concurrent. Development of understanding of office procedures, flow of work in offices, interrelationship of offices, filing, telephone techniques, mail regulations, business protocol and experiences in general office work expectations. 4 lec.

### **262 Report and Letter Writing (4)**

Prereq: 123 and Eng 181 or equiv. Extensive and detailed practice in written communicative techniques used in business, industry and professions involving composition of letters, memorandums, reports and term papers as well as analysis and summary of business conferences, meetings, talks and addresses. 4 lec.

### **293 Seminar II (2)**

Prereq: concurrent with 299. Special topics and problems encountered in field experience discussed. Opportunity to share ideas and experiences and to find possible answers to questions arising in actual working situations. A continuation of 250. 2 lec.

### 299 Internship II (3)

Prereq: 249. Practical field experience situation providing exposure to a variety of activities under supervision of program coordinator. A continuation of 249. 20 lab.

## SOCIAL WORK

The Department of Social Work offers a flexible interdisciplinary curriculum designed to meet the requirements of students desiring to pursue an academic or professional career in an area of social work. Students completing the program will receive the AB degree with a major in social work.

The goal of the curriculum is to develop students capable of using themselves in creative and purposeful ways to deal with social problems that confront our society and its members. Students have considerable latitude in selecting sequences of courses related to their own needs and goals; however, students anticipating this major should consult with a member of the department as soon as possible to plan a program which will meet all degree requirements.

Ohio University's Department of Social Work is a constituent member of the Council on Social Work Education, and graduates are qualified for full membership in the National Association of Social Workers.

The requirements for a major in social work consist of: a minimum of 40 hours of courses in social work including 290, 391, 392 and the sequence in Social Work Practice; 490A, 490B and 490C. Zool 103, Human Biology; Psy 121, Elementary Statistics, or Soc 350, Social Statistics and Soc 351, Elementary Research Techniques; Psy 173, Child and Adolescent Psychology, and Psy 332, Abnormal Psychology or Psy 336, Social Psychology, are required. Only Psy 121 or Soc 350 may be taken pass/fail. In addition to the above, 42 hours must be taken in the sociobehavioral sciences including one course in each of the following: anthropology, economics, government, psychology and sociology. A list of courses in other departments that are particularly relevant to social work may be secured from the Department of Social Work in Morton Hall.

The Department of Social Work is fully accredited by the Council on Social Work Education.

### 101 Introduction to Social Welfare and Social Work (3)

Overview of field of social welfare with equal emphasis on fundamental concepts and services in social welfare and current and emerging tasks in profession of social work.

### 290 Social Security System (4)

Prereq: Econ 101 recommended. Programs, poli-

cies and problems related to prevention and alleviation of economic insecurity in the U.S. Special emphasis placed on social insurance and public assistance programs with evaluation of proposals for change.

### 391 The American Social Welfare Institution (4)

Prereq: 290 or perm. Nature of social welfare as a social institution, stressing scope of social welfare activity; historical development; value orientation; response to critical social problems, issues in social policy and emergence of social work as a profession.

### 392 Contemporary American Social Services (4)

Prereq: 391 or perm. Development of specific social services to meet human needs and evaluation in terms of their relevancy and adequacy in our present society. Individual studies in areas of particular interest (i.e., child welfare, mental health, etc.)

### 394 Comparative Social Welfare Systems (3)

Prereq: 8 hrs of social welfare. Examination and comparison of social welfare problems and response-systems in various nations, including Canada, Sweden, England, USSR, Yugoslavia and Cuba. Particular attention given to issues of social and economic security, social mobility, crime, health and social policy formation.

### 395 Aging in the Welfare State (4)

Prereq: jr rank; plus 18 hrs in social sciences. Review of available knowledge on social life and problems of aged in America with emphasis on those needing social services. Attention devoted to social welfare policies and services designed to meet needs of the elderly.

### 490A Social Work Practice (8)

Prereq: 392 and perm. (fall) First of a 3-qr sequence offering field placement in an organization related to student's social work interest; seminar on social work practice; and twice-weekly class emphasizing development of analytical skills that allow student to deal systematically with problems of clients, organizations and communities.

### 490B Social Work Practice (10)

Prereq: 490A and perm. (winter) Continuation of field placement qtr (with increased time in placement) and practice seminar from previous qtr and twice-weekly class emphasizing use of social work interview as primary tool in problem assessment and effective adaptational change in such areas as individual and family counseling.

### 490C Social Work Practice (10)

Prereq: 490B and perm. (spring) Continuation of previous qtr's field placement and practice seminar with twice-weekly class emphasizing theoretical concepts and behavioral skills necessary for social work intervention in social systems

larger than small groups, such as service organizations neighborhoods, community political structures, etc.

#### **493 Social Policy (4)**

Prereq: 490A or perm. Examination of social policy stressing policy development; relationships of policy, goals and organizational structure, and decision-making patterns and role assignments within social welfare organizations and agencies.

#### **498 Independent Studies and Special Projects in Social Work (1-10)**

Prereq: 12 hrs in social work and perm. Student responsible for design and implementation of course of study or special project in an area related to social work. Student interested in course must submit proposal for approval by department chairman at least 30 days prior to enrollment in course. Course may be repeated until 10 hrs of credit are earned.

## **SOCIOLOGY**

The major requirement for the AB degree in sociology is a minimum of 45 quarter hours of courses in sociology, of which at least 16 hours must be at the 400 level, and including: introductory sociology (101 or 302), one course in methods (350 or 351), and one course in theory (403 or 404). (Courses in anthropology count toward the Arts and Sciences social science requirement.)

#### **100 Social Problems (4)**

Prereq: not open to students with 223. Sociological analysis of major contemporary social problems and issues. Problems such as militarism, poverty, racism, inequality, cybernation, dehumanization, repression and constraint considered, among others. Theories and research on social structure, social policy and social action. Replaces 360.

#### **101 Introduction to Sociology (5)**

Prereq: fr or soph rank. Nature of human society and factors affecting its development. Fundamental concepts of sociology: culture, personality, groups, institutions.

#### **210 Introduction to Social Psychology (4)**

Prereq: 101 or 302. Patterning of conduct through social interaction; functional analysis of individual-group relationships in various organizational contexts; current theory and research in the field. Replaces 110.

#### **211 Crowd and Mass Behavior (4)**

Prereq: 101 or 302. Collective behavior resulting from social unrest; social contagion; formation and behavior of crowds; cults and sects; panic

and disaster behavior; various types of mass behavior; impact upon social institutions. Replaces 111.

#### **220 Introduction to Family Sociology (4)**

Prereq: 101 or 302. Cross-cultural analysis of family systems. Primary emphasis on American family: courtship, marriage and family relationship. Replaces 320.

#### **223 American Society (4)**

Prereq: 101 or 302. Not open to students with 100. Sociological interpretation of American society. Institutional order: family, economy, government, education and stratification. Problem of stability of social and cultural systems. Replaces 123.

#### **302 Principles of Sociology (5)**

Prereq: jr or sr rank. Same as 101, covered in a more intensive manner. Not open to students who have taken 101.

#### **305 Readings in Sociology (1-6, max 6)**

Prereq: 16 hrs and perm. Independent, directed readings designed to expand student's understanding in selected area of interest.

#### **309 Sociology of Appalachia (4)**

Prereq: 101 or perm. Intensive study of Appalachia from sociological perspective. Emphasis on population of Appalachia (number and distribution of inhabitants, characteristics of population, vital processes and migration), "culture of rural poverty," acceptance of innovation and social change in Appalachia, major social institutions in the area and community power structure in Appalachia.

#### **315 The Individual in Mass Society (4)**

Prereq: jr or sr rank. Analysis of implication of cultural and social complexity for processes of individuation, identity formation, and identity maintenance. Consideration of simultaneous growth of secondary relations and dissolution of primary relations, and of significance of these to social, psychological and cultural organization as we approach automated society.

#### **327 Sociology of Education (4)**

Prereq: 8 hrs. School as social institution in relation to community and development of child; comparative systems of education; sociology of learning and teaching.

#### **329 Minority Group Relations (4)**

Prereq: 8 hrs. Racial, male-female and ethnic problems in America; causes and consequences of prejudice and discrimination.

#### **335 Economic Sociology (4)**

Prereq: jr or sr rank; 8 hrs of sociology. Consideration of dynamics and social and cultural effects of various systems of power. Main focus is to analyze extent to which selected "capitalist"

and "socialist" systems produce concentrated power, inequality, alienated work and life styles, and imperialism; also to analyze strategies for change in the United States.

#### **340 Population Analysis (4)**

Prereq: 8 hrs. Social and cultural determinations and consequences of changes in fertility, mortality and migration. Current and historical national and international population policies and programs.

#### **350 Social Statistics (4)**

Prereq: 101 or 302. Principles and procedures in treatment and presentation of quantitative social data. Methods of measuring central tendency, dispersion and association. Scientific sampling, estimation and tests of significance.

#### **351 Elementary Research Techniques (4)**

Prereq: 8 hrs. Research techniques in sociology. Research design; collection, recording and analysis of data.

#### **352 Field Studies in Sociology (4)**

Prereq: 351. Planning, execution and write-up of an empirical study, utilizing skills developed in 351. Limited class meetings, conferences with instructor, research report.

#### **361 Defiant Behavior (4)**

Prereq: 8 hrs. Theory and research concerning major types of deviant behavior and societal reaction to such things as criminality, suicide, drug addiction and mental disorders. Causes and consequences of deviant behavior.

#### **362 Criminology (4)**

Prereq: 8 hrs. Theories and research in criminal behavior and the societal reaction to criminality. Causes and consequences of crime.

#### **363 Juvenile Delinquency (4)**

Prereq: 8 hrs. Theories and research in delinquency. Causes and consequences of delinquent behavior among juveniles.

#### **403 Development of Sociological Thought (4)**

Prereq: 8 hrs. Major sociological concerns and concepts in relation to their social-historical setting. Special emphasis upon sociological thought in 18th and 19th centuries.

#### **404 Modern Sociological Theory (4)**

Prereq: 12 hrs. Critical examination of major sociological conceptual frameworks in 20th century.

#### **406 Proseminar in Sociology (4)**

Prereq: 20 hrs. Critical examination of selected theoretical and research problems. Primarily for advanced students in sociology.

#### **407 Social Process and Change in Southeast Asia (4)**

Prereq: perm. Social processes and change in traditional institutional and communal patterns in mainland and island regions and differential impact of change upon various groups, personalities and social relationships.

#### **408 Latin American Society (4)**

Prereq: 8 hrs or prev course on Latin America or perm. Intensive study of Latin American society from sociological perspective. Emphasis on contemporary Latin American values, population problems, man-land relations, levels and standard of living, social institutions, urbanization and social change.

#### **412 Public Opinion Process (4)**

Prereq: 210 or 211. Attitudes and opinions in relation to formation of public opinion; political socialization and participations; social status, reference groups, decisionmaking and role of mass media. Structure and process in behavior publics.

#### **413 Mass Communication (4)**

Prereq: 211 or 412. Personal and social functions of content in newspapers, radio, television and film. Types of audiences and communication effects. Organization and control of mass media and problems in evaluation.

#### **414 Contemporary Social Movements (4)**

Prereq: 8 hrs. Organized movements resulting in major social changes; revolutionary, nationalistic reform; religious agitation, leadership, ideology, case studies of typical movements.

#### **416 Society and the Individual (4)**

Prereq: 8 hrs sociology and psychology or perm. Exploration of compatibilities and/or contradictions in psychological systems, culture and social structure.

#### **419 Small Group (4)**

Prereq: 210 or 12 hrs of psychology. Major theories and methods for study of small group theories and methods for study of small group as unit of social systems; communication patterns, role definition, leadership, cohesion, etc.; review of current literature.

#### **421 Comparative Studies of Family (4)**

Prereq: 8 hrs. Intra-cultural and cross-cultural differences and similarities in marriage patterns and family types, their social and cultural determinants and consequences and their significance for family life.

#### **422 The American Family System (4)**

Prereq: 8 hrs. Historical development of nuclear family in Europe and America. Special attention given to change of family patterns since colonial times and conditions leading to formation of American family, including problems and challenges this family system faces today.



**424 Urban Sociology (4)**

Prereq: 8 hrs. Historical development and recent emergence of city as dominant feature of modern social life. Special emphasis upon demographic and ecological patterns and social organization of urban region.

**425 Rural Sociology (4)**

Prereq: 8 hrs. Rural population, community and institutions in America and other societies. Historical developments and current trends. Rural life organizations and movements.

**426 Industrial Sociology (4)**

Prereq: 8 hrs. Interrelationship between industrial and social order. Special attention to social organization and processes within formal and informal structure of industrial unit.

**428 Sociology of Religion (4)**

Prereq: 8 hrs. Interrelationship between religious institution and social structure from comparative perspective and with particular reference to American society.

**430 Sociology of Organization (4)**

Prereq: 8 hrs. Organization and structure of social groups. Basic cultural patterns of economic, kinship and other institutions. Integration and disintegration of social groups and institutions.

**431 Social Stratification (4)**

Prereq: 8 hrs. Social and economic classes, castes and other social strata, their origin, changes and correlates in other spheres of society.

**432 Political Sociology (4)**

Prereq: 8 hrs. Social and cultural basis of influence, power and authority. Emphasis upon informal aspects of political process in groups and institutions other than government.

**433 Sociology of Occupations and Professions (4)**

Prereq: 8 hrs. Professionalism as characteristic of modern economic and industrial complexes; popular conception and modern theory; social and technological preconditions; occupation-profession continuum; components, barriers and strategy; mock-professionalism; motivation and satisfaction; controls; professionalism in particular professions.

**441 Population Theories (4)**

Prereq: 12 hrs, 340 recommended. Major theoretical frameworks in population analysis; how they account for changes in fertility, mortality and migration; impact of these changes on human society.

**453 Research Problems in Sociology (2-6)**

Prereq: 20 hrs including 351 and written perm prior to registration. Individual research in specific problem areas in which student has demonstrated ability and interest.

**464 Social Control (4)**

Prereq: 12 hrs. Nature of institutional control and sociocultural constraint as they affect human behavior. Theories and research.

**465 Social Change (4)**

Prereq: 12 hrs. Dynamics and processes by which social change takes place; innovation and its diffusion, industrialization and modernization, social evolution and revolution, planned change.

## SOUTHEAST ASIAN STUDIES

See International Studies.

## SPANISH

See Foreign Languages and Literatures.

## SWAHILI

See Foreign Languages and Literatures.

## THEATER

**100 Introduction to Theater (3)**

For nontheater majors. (fall, spring) Basic elements of drama and theater; 2 lec, 1 recit.

**114A Ohio Company—Basic Performance, Production and Orientation (3)**

(fall) Introductory study of theater performance and production for fr and transfer students not previously placed in advanced theater programs.

**114B Ohio Company—Basic Performance, Production and Orientation (3)**

Prereq: 114A or perm. (winter) Continuation of 114A.

**114C Ohio Company—Basic Performance, Production and Orientation (3)**

Prereq: 114B or perm. (spring) Continuation of 114B.

**115A Voice for the Stage (2)**

(fall) *V. Hahne*. Individual and group instruction in basic elements of vocal training for the stage; must be taken in sequence.

**115B Voice for the Stage (2)**

Prereq: 115A. (winter) *V. Hahne*. Continuation of 115A; see 115A for description; must be taken in sequence.

**115C Voice for the Stage (2)**

Prereq: 115B. (spring) *V. Hahne*. Continuation of 115A-115B; see 115A for description; must be taken in sequence.

**116A Body Training (2)**

(fall) *B. Dilley*. Individual and group instruction in basic elements of body training for stage; must be taken in sequence.

**116B Body Training (2)**

Prereq: 116A. (winter) *B. Dilley*. Continuation of 116A; see 116A for description; must be taken in sequence.

**116C Body Training (2)**

Prereq: 116B. (spring) *B. Dilley*. Continuation of 116A-116B; see 116A for description; must be taken in sequence.

**117A Body Training (2)**

Prereq: 2 yrs of recent training in ballet and/or modern dance or perm. (fall) Individual and group instruction in advanced elements of body training for stage; must be taken in sequence.

**117B Body Training (2)**

Prereq: 117A. (winter) Continuation of 117A; see 117A for description; must be taken in sequence.

**117C Body Training (2)**

Prereq: 117B. (spring) Continuation of 117A-117B; see 117A for description; must be taken in sequence.

**130A Technical Production: Scenery (3)**

(fall) *R. Winters*. Principles of technical production. 3 lec, 1 lab.

**130B Technical Production: Lighting (3)**

(winter) *S. Abbott*. Principles of technical production. 3 lec, 1 lab.

**130C Technical Production: Costume (3)**

(spring) Principles of technical production. 3 lec, 1 lab.

**215 Principles of Acting (3)**

Prereq: 115 A,B,C and 116 A,B,C or 117 A,B,C. (fall) *D. L. Dalen*. Basic principles and techniques of acting for theater majors preparing for audition to Professional Actor Training Program.

**215A Principles of Acting (3)**

Prereq: soph rank or perm. (summer, fall, winter, spring) Basic principles and techniques of acting for majors and nonmajors not preparing for audition to Professional Actor Training Program.

**220 Oral Interpretation (3)**

Techniques in oral interpretation and development of intellectual and emotional responsiveness to meaning of literature. 3 lec.

**240 Introduction to Child Drama (2)**

(fall) Informal theater by children and formal theater for children; their roles in artistic and educational development of children. 2 lec, 1 lab.

**301 Play Production (4)**

Fundamentals of theatrical production. Lab experience. Not open to theater majors. 3 lec, 2 lab.

**310A Acting Studio (8)**

Prereq: theater major and audition. (fall) Intensive work in acting through exercises and scene study. Additional training in voice, speech, movement and other craft study related to acting.

**310B Acting Studio (8)**

Prereq: 310A. Continuation of 310A. See 310A for description.

**310C Acting Studio (8)**

Prereq: 310B. Continuation of 310A and 310B. See 310A for description.

**311A Stage Speech (2)**

Prereq: 115A, B, C; theater major. (fall) Principles and practice in vocal action for stage.

**311B Stage Speech (2)**

Prereq: 311A; theater major. (winter) Principles and practice in vocal action for stage.

**311C Stage Speech (2)**

Prereq: 311B; theater major. (spring) Principles and practice in vocal action for stage.

**312A Stage Movement (2)**

Prereq: 116A, B, C, or 117A, B, C; theater major. (fall) Principles and techniques of expressive movement.

**312B Stage Movement (2)**

Prereq: 312A or perm. (winter) Principles and techniques of expressive movement.

**312C Stage Movement (2)**

Prereq: 312B or perm. (spring) Principles and techniques of expressive movement.

**315 Intermediate Acting I (3)**

Prereq: 215 and perm. (winter) *D. L. Dalen*. Continuation of 215.

**315A Intermediate Acting I (3)**

Prereq: 215 or 215A. (winter) Continuation of 215A.

**316 Intermediate Acting II (3)**

Prereq: 315, perm. (spring) Continuation of 315.

**316A Intermediate Acting II (3)**

Prereq: 315 or 315A. (spring) Continuation of 315A.

**330A Stagecraft: Scenery (3)**

Prereq: 130A. *R. Winters*. Procedures and prac-

tice in theatrical production; practical crew experience. 2 lec, 4 lab.

### **330B Stagecraft: Lighting (3)**

Prereq: 130B. *S. Abbott*. Procedures and practice in theatrical production; practical crew experience. 2 lec, 4 lab.

### **330C Stagecraft: Costume (3)**

Prereq: 130C. Procedures and practices in theatrical production; practical crew experience. 2 lec, 4 lab.

### **332 Theatrical Rendering (3)**

Prereq: 330 A, B, C. (fall) *R. Lacy*. Drafting, perspective, color and rendering as applied to production design. 2 lec, 2 lab.

### **333 Historical Bases of Design (4)**

Prereq: 330 A, B, C. (fall) *R. Winters*. Art history from prehistoric times and application to production design. 4 lec.

### **337 Basic Makeup (1)**

Prereq: theater or communication major. Theory and practice of stage makeup. 1 lec, 1 lab.

### **340 Dramatic Literature for Children (3)**

(fall or spring) Examination of plays for child audiences and literature for dramatization by children. 3 lec.

### **350 Playwriting (5)**

Prereq: perm. (fall) *S. Quinn*. Theory and practice of dramatic writing.

### **370 Theater History I (3)**

(fall) *S. Quinn*. Development of theater and drama in prehistoric, Greek and Roman periods.

### **371 Theater History II (3)**

(winter) *S. Quinn*. Development of theater and drama in Medieval and Renaissance periods.

### **372 Theater History III (3)**

(spring) Development of theater and drama from Renaissance to modern.

### **388 Musical Theater Projects (1-4)**

Prereq: perm. (summer, fall, winter, spring) Participation in selected musical theater projects announced in advance of registration. Orientation may be either research or production.

### **390 Individual Projects (1-8, max 8)**

Prereq: perm and independent study form req. May be repeated for total of 8 credits. Arranged.

### **405 Practicum in Management (1-4)**

Prereq: perm. May be repeated for a total of 17 credits. Supervised laboratory practice in problems of theater publicity, finance and house management.

### **410A Advanced Acting Studio (8)**

Prereq: 310 A, B, C; perm. (fall) Advanced study in acting and related craft work. Problems of rehearsal and performance.

### **410B Advanced Acting Studio (8)**

Prereq: 410A. Continuation of 410A. See 410A for description.

### **410C Advanced Acting Studio (8)**

Prereq: 410B. Continuation of 410A and 410B. See 410A for description.

### **413 Acting Internship (1-12)**

Prereq: perm.

### **415 Practicum in Acting (1-4)**

Prereq: perm. May be repeated for a total of 17 credits. Supervised laboratory practice in rehearsal and public performance of roles.

### **420 Advanced Interpretation (4)**

Prereq: 220 or equiv. Analysis and oral presentation of principal types of literature. 3 lec/recit.

### **430 Advanced Stagecraft (4)**

Prereq: 330 A, B, C, 332. (fall) *R. Lacy*, *R. Winters*, *S. Abbott*. Advanced problems of scenery construction, handling and rigging. 2 lec, 2 lab.

### **431 Theory of Lighting (4)**

Prereq: 330 A, B, C, 332. (winter) *S. Abbott*. Creative processes in design and execution of lighting for proscenium and non-proscenium forms. 3 lec, 2 lab.

### **432 Properties and Special Effects (4)**

(winter) Problems of properties, sound and special effects. 2 lec, 2 lab.

### **433 Scene Design (4)**

Prereq: 332. (winter) *R. Lacy*, *R. Winters*. Principles and projects in scene design as a part of production design. 2 lec, 2 lab.

### **433A Scene Design (4)**

Prereq: 330 A, B, C. (summer, fall, winter, spring) Principles and projects in scene design as part of production design.

### **434 Practicum in Production Design (1-4)**

Prereq: perm. May be repeated for a total of 17 credits. Supervised laboratory practice in design and execution of scenery, lighting, costumes, properties and sound.

### **435 History of Costume (4)**

Prereq: 330 A, B, C. (fall) Development of dress and influence of cultural factors from Egyptian and Asian civilizations, including fabrics, accessories and ornamentation. 4 lec.

### **436 Costume Design (4)**

Prereq: 435. (winter) Application of principles of design to stage costuming, with emphasis on

fabrics, figure drawing and characterization. 2 lec, 2 lab.

#### **438 Advanced Makeup (3)**

Prereq: 337, perm. (fall, winter) Corrective, 3-dimensional and nonrealistic makeup; rubber prosthesis; character analysis. 1 lec, 2 lab.

#### **440 Children's Theater (3)**

Prereq: 340 or perm. (fall) Philosophies and practical production procedures for child audiences. 2 lec, 2 lab.

#### **450 Advanced Playwriting (5)**

Prereq: 350 or perm. Special problems in writing the long play.

#### **451 Playwrights Workshop (3, max 9)**

Prereq: perm. Practical workshop experience for playwrights, directors and actors with new scripts. May be repeated.

#### **460 Directing I (3)**

Prereq: 215 or 215A. (fall, spring) Principles and practices of directing for stage. 2 lec, 2 lab.

#### **461 Directing II (3)**

Prereq: 460. (winter) Practical experience in directing for the stage. 4 lab.

#### **465 Practicum in Directing (1-4)**

Prereq: perm. May be repeated for a total of 17 credits. Supervised laboratory practice in planning and executing a dramatic production.

#### **470 Greek Theater and Drama (4)**

(fall) Drama, theater and audience in ancient Greece. 3 lec.

#### **471 Roman and Medieval Theater (4)**

(winter) Intensive study of drama and theater of Roman and Medieval Europe. 3 lec.

#### **472 Renaissance Theater and Drama (4)**

(spring) Development of European theater and drama in Renaissance. 3 lec.

#### **473 18th Century Theater (4)**

(spring) Drama, theater and audience in England from Restoration through 18th century. 3 lec.

#### **474 Baroque European Theater (4)**

(fall) Detailed study of theater and drama of Europe in Baroque period. 3 lec.

#### **475 19th Century European Theater (4)**

(winter) Major developments in drama and theater in Europe during 19th century. 3 lec.

#### **476 Contemporary Theater (4)**

(spring) Trends and developments in 20th century theater. 3 lec.

#### **477 American Theater and Drama (4)**

(spring) Development of theater and drama in

North America from colonial to modern times. 3 lec.

#### **498 Advanced Individual Projects (1-6, max 6)**

Prereq: perm and independent study form req. May be repeated for total of 6 credits. Arranged.

#### **499 Independent Readings (1-12, max 12)**

Prereq: perm and independent study form req. May be repeated for total of 12 credits. Arranged.

## **ZOOLOGY AND MICROBIOLOGY**

The major requirements for the AB and BS degrees are a minimum of 40 and 50 quarter hours respectively in approved departmental courses. Departmental course requirements include: Zool 101, 203, 325; 303 or 430; 448 and 449 or 460 and 461; 475 or 477 or 479. Extradepartmental courses required for both the AB and BS degrees are: Bot 102; Chem 141, 142, 143, 301 and 302; Eng 181; ISE 404; Math 163A or 263A, and Phys 201, 202 and 203.

Other programs are outlined in the College of Arts and Sciences section of the catalog for students preparing for dentistry, medical technology, medicine, microbiology, optometry and physical therapy, any one of which may also lead to a baccalaureate degree with a major in zoology. The outlined curricula should be consulted regarding the specific requirements for each; they do contain different sets of requirements from those given in the above paragraph. Students who wish to teach and also receive the AB or BS degree with a major in zoology must satisfy requirements for both teaching certification and the major.

Majors are not permitted to take any course (departmental or extradepartmental) which is required to fulfill minimum major special curriculum requirements on a pass/fail basis. No grade which proves to be honestly and correctly issued by a department faculty member will be changed.

## **MICROBIOLOGY**

#### **211 Environmental Microbiology (3)**

Prereq: one qtr biological science or chemistry or perm. (fall, spring) *J. Lawrence*. Natural microbial activities, their function in waste and pollution reclamation and disposal, water purification, food production and spoilage and in public health. 3 lec.

#### **212 Environmental Microbiology Laboratory (2)**

Prereq: 211 or with 211. (fall, spring) *J. Lawrence*. Characteristics and activities of microbes

of special relevance to man's welfare and those affecting maintenance of environmental quality. 2 lab.

#### 411 General Microbiology (6)

Prereq: 10 hrs biological science; organic chemistry, (fall, winter) *S. Maier, R. Downey*. Properties of bacteria and other protists and their importance in our environment. Laboratory training in common bacteriological methods. 3 lec, 6 lab.

#### 412 Microbiological Techniques (4)

Prereq: 411, perm. (winter) *S. Maier*. Semi-independent course gives microbiology major extensive experience in use of bacteriological techniques and equipment; information retrieval. 2 lec, lab arranged.

#### 413 Pathogenic Bacteriology (6)

Prereq: 411. (winter) *J. Lawrence*. Microorganisms in relation to disease. Disease manifestations, diagnostic and control methods; some aspects of immunity. 3 lec, 6 lab.

#### 415 Immunology (6)

Prereq: 411. (spring) *R. Walker*. Fundamental concepts of immunity, how produced, advantages and disadvantages; fundamental immunological phenomena. 3 lec, 6 and arr lab.

#### 417 Advanced General Microbiology (6)

Prereq: 411. (fall) *J. Lawrence*. Selected topics; cell structure, staining, sporulation, growth, variation, biochemical tests. Extensive assigned readings in current literature. 3 lec, 6 lab.

#### 419 Bacterial Physiology (6)

Prereq: 411. (spring) *S. Maier*. Nutrition, function and metabolism of bacteria; pertinent laboratory work illustrating fundamental principles and various experimental techniques. 3 lec, 5 lab.

#### 427 Molecular Genetics (3)

Prereq: 325 or Bot 431, organic chemistry; perm. (winter; alternate yrs) *J. McQuate, C. Atkins*. Gene action and fine structure; biochemistry of heredity; cytoplasmic inheritance. 3 lec.

#### 482 Topics in Microbiology (1-6, max 8)

Prereq: 20 hrs of microbiology including 411; 2.5 gpa in major courses, perm. Individual or small-group study of specialized topics in microbiology under supervision of instructor.

#### 485 Undergraduate Research (1-3, max 12)

Prereq: 20 hrs and 2.5 gpa in major courses, perm from specific professor. Independent research under supervision of staff member.

#### H485 Undergraduate Research (1-4, max 12)

Prereq: 3.0 gpa in sciences, perm. Individualized and directed research. Students select topics or are directed into possible research areas.

#### H495 Undergraduate Research (Thesis) (3-9, max 15)

Prereq: H485, 3.0 gpa in sciences, sr rank. Independent departmental honors research under supervision of staff member. Student should enroll the qtr he expects to complete his thesis.

## ZOOLOGY

#### 101 Principles of Biology (5)

*W. Witters and staff*. Principles and concepts of biology. Emphasis on principles of cellular biology, classical and modern genetics, ecology and evolution. Integration of all topics to show interrelationships of genetics, reproduction, development and evolution. (Same as Bot 101) 3 lec, 2 lab.

#### 103 Human Biology (4)

(fall, winter, spring) *W. Witters, P. Jones*. Effect of man on ecosystem, including pollution and population relationships. Emphasis on drugs, their abuse, their pharmacology and recent research findings on effects of drugs on humans. Reproductive physiology, contraceptive technology and research, biological aspects of abortion and venereal disease. 3 lec.

#### 203 Principles of Zoology (6)

Prereq: 101 or Bot 101. (winter, spring) *J. Rovner*. Principles of development, anatomy, physiology, behavior and laboratory survey of major phyla. Designed primarily for majors in the sciences and preprofessional students. 4 lec, 4 lab.

#### 300 Elements of Anatomy and Histology (6)

Prereq: 203; not open to fr. (fall) *B. Allen*. Basic tissues and organ systems of human body. Cat used for dissection. For medical technology, pre-nursing, premortuary and prepharmacy students. 4 lec, 4 lab.

#### 301 Human Anatomy (6)

Prereq: 101, not open to fr. (fall, winter) *F. Hagerman*. Structure of body systems with particular emphasis on human skeletal and neuro-muscular systems. Cat used for dissection. For physical education and prephysical therapy students only. 3 lec, 6 lab. (Same as HPER 301).

#### 303 Comparative Vertebrate Anatomy (6)

Prereq: 203, not open to fr. (winter, spring) *B. Allen*. Comparative study of body systems of vertebrates, with lab work covering various type forms. 3 lec, 6 lab.

#### 305 Histological Technique (3)

Prereq: 203, jr or sr rank. (fall) *J. Gault, W. Peterson*. Principles and methods of preparing animal tissues for microscopic study. 1 lec, 4 lab.

#### 325 General Genetics (5)

Prereq: 203 or Bot 102. (fall, spring) *C. Atkins*,

*J. McQuate*. Principles and concepts of genetics as revealed by classical and modern investigation. 5 lec.

### 326 Laboratory Genetics (4)

Prereq: 325. (winter) *J. McQuate, C. Atkins*. Experiments with *Drosophila*, bacteria and bacterial viruses designed to illustrate principles of genetics. Preparation of slides and karyotyping of chromosomes of man. 6 lab.

### 345 Human Physiology (4)

Prereq: 300 or 301; not open to fr. (spring) *F. Hagerman*. Functions of various systems as applied to the human. Special reference to physiological adaptations to environment and regulatory functions. For education, medical technology, physical education and prephysical therapy students only. (Same as HPER 345.) 4 lec.

### 346 Human Physiology Laboratory (2)

Prereq: anatomy, 345 or with 345. (winter, spring) *F. Hagerman*. Laboratory experiences designed to complement material covered in 345. For prephysical therapy students; others by perm only. 4 lab.

### 352 Kinesiology (4)

Prereq: 301. Analysis of human motion based on anatomical and mechanical principles. 4 lec. (Same as HPER 252).

### 371 Ornithology (4)

Prereq: 10 hrs biological science. (spring) *H. Seibert*. Bird biology, including general anatomy and physiology, migration, classification, life histories. Emphasis on field identification. 2 lec, 3 field work.

### 382 Topics in Zoology (1-3)

Prereq: 101 or Bot 101, perm of specific instructor. Individual or small-group study, under supervision of instructor, of topics not otherwise available to undergraduate students. Credit not applicable toward major in zoology or microbiology.

### H390 Biology and the Future of Man (5)

Prereq: perm. (spring) *W. Witters*. Major topics: drug pharmacology and research with emphasis on drugs commonly used and over-the-counter drugs; physiological effects of pollution and environmental problems facing man, population controls and pressures, contraceptive research, human sexuality research, radiobiology, energy and bioethical problems facing mankind in the future. 4 lec, 1 arr.

### 404 Comparative Vertebrate Anatomy—Mammalian (6)

Prereq: 303. (fall) *B. Allen*. Continuation of 303. Anatomy of mammals with particular emphasis on the cat. 3 lec, 6 lab.

### 406 Vertebrate Embryology (6)

Prereq: 300 or 303. (winter, spring) *W. Peterson*. Development from gametogenesis to organogenesis in representative vertebrate types with laboratory emphasis given to chick and pig. 4 lec, 4 lab.

### 408 Histology (6)

Prereq: 203. (winter) *O. Heck*. Cells, tissues and organ systems with regard to their morphological and physiological properties. 4 lec, 4 lab.

### 427 Molecular Genetics (3)

Prereq: 325 or Bot 431, organic chemistry; perm. (winter; alternate yrs) *J. McQuate, C. Atkins*. Gene action and fine structure; biochemistry of heredity; cytoplasmic inheritance. 3 lec.

### 428 Human Genetics (4)

Prereq: 325. (winter; alternate yrs) *J. McQuate*. Genetics of man including normal and abnormal chromosomology; human biochemical genetics; genes in individuals, kindreds, populations and evolution. 4 lec.

### 430 Invertebrate Zoology (6)

Prereq: 20 hrs in major courses, perm. (spring, alternate years) *W. Hummon*. Structure, function and systematic relationships of invertebrates, excluding protozoans, parasites and insects. 3 lec, 6 lab.

### 433 General Protozoology (6)

Prereq: 15 hrs in biological sciences. (fall; alternate yrs) *W. Peterson*. Structure, life histories, physiology and systematic relationships of representatives from all major groups of protozoa. 3 lec, 5 lab.

### 435 General Entomology (6)

Prereq: 203. (spring) *W. Romoser*. Overview of morphology, physiology, systematics and general biology of insects. 3 lec, 6 lab.

### 437 Medical Entomology (4)

Prereq: 203. (winter) *W. Romoser*. Relationship of insects and related arthropods to human disease. 3 lec, 2 lab.

### 438 Topics in Insect Physiology (3)

Prereq: perm. (upon demand) *W. Romoser*. A seminar approach to current topics in insect physiology. 3 lec.

### 439 Field Entomology (5)

Prereq: 203, 435 or perm. (spring) *W. Romoser*. Systematics, evolution, ecology and behavior of insects with emphasis on field collection and identification. 2 lec, 6 lab.

### 441 Parasitology (6)

Prereq: 203. (spring) *O. Heck*. Etiology of human parasites, their transmission, diagnosis and prevention. 3 lec, 6 lab.

**442 Helminthology (6)**

Prereq: 203. (fall; alternate yrs) *O. Heck*. Biology of parasitic worms with emphasis on physiology, classification, life histories and host response. 3 lec, 6 lab.

**445 Physiology of Exercise (4)**

Prereq: 345. (fall) *F. Hagerman*. Fundamental concepts describing reaction of organ systems to exercise/muscle metabolism and work evaluation; special reference to physical fitness, sport conditioning and environmental adaptations to exercise. 4 lec. (Same as HPER 414/514.)

**446 Physiology of Exercise Laboratory (2)**

Prereq: 345, or perm.; required for those enrolled in 445/545. (fall, winter) *F. Hagerman*. Laboratory experiences designed to complement 445/545. 4 lab. (Same as HPER 415/515.)

**448 Cell Physiology (4)**

Prereq: organic chemistry (physics recommended). (spring) *J. Wilson*. Fundamental processes involving physical and chemical reactions at cellular and molecular levels. Nutrition, energy metabolism, excretion, responsiveness and growth investigated in depth. 4 lec.

**449 Cell Physiology Laboratory (4)**

Prereq: 448 or with 448, perm. (spring) Laboratory experiments designed to illustrate experimental bases of principles discussed in 448. 6 hrs lab and arr.

**450 Principles of Endocrinology (4)**

Prereq: 460 or 448 recommended. (fall) *P. Jones*. Endocrine control of mammalian homeostasis and metabolism. 4 lec.

**451 Endocrinology Laboratory (4)**

Prereq: 450. (spring) *P. Jones*. Experimental techniques pertinent to study of endocrine glands including surgical ablation of one or more glands using rats. 6 lab.

**452 Advanced Endocrinology (4)**

Prereq: 450. (winter) *P. Jones*. Discussions of current research in mammalian endocrinology. Emphasis on reproduction controls and mechanisms. 4 lec.

**460 Animal Physiology (5)**

Prereq: organic chemistry (physics, calculus and 448 recommended). (fall) *J. Wilson*. General and comparative physiology emphasizing principal functions underlying life processes. Emphases placed on physiological adaptations to environment and neurophysiological systems. 5 lec.

**461 Animal Physiology Laboratory (4)**

Prereq: 460 or with 460, perm. (fall) Laboratory exercises designed to illustrate experimental basis of principles covered in 460. 6 and arranged lab.

**463 Cell Chemistry (4)**

Prereq: organic chemistry; Chem 123 acceptable for HEFN students. (fall, spring) *J. Wilson*. Chemistry of carbohydrates, lipids, proteins and nucleic acids. Principles of enzyme activity and kinetics; metabolic pathways. 4 lec.

**464 Cell Chemistry Laboratory (3)**

Prereq: 463. (winter) *J. Gault, J. Wilson*. Basic procedures in qualitative and quantitative analysis of biological compounds. For medical technology students only (with perm). 3 lab.

**473 Ethology (6)**

Prereq: perm. (fall) *J. Royner*. Analysis of exogenous and endogenous factors which regulate behavior of invertebrates and vertebrates. 4 lec, 4 lab.

**474 Mammalogy (6)**

Prereq: 203. (fall) *G. Svendsen*. Mammals; their origin, evolution and adaptations, geographical distribution, ecology and systematics. Emphasis on local fauna. 4 lec, 4 lab.

**475 Animal Ecology (3)**

Prereq: 203, not open to fr or soph. (winter) *H. Seibert*. Relation of animals to their habitat, to each other and to man. General principles of terrestrial and aquatic communities, ecosystems and man's involvement. 3 lec.

**476 Ecology Laboratory (2)**

Prereq: 475. (spring) *H. Seibert*. Field course for animal ecology, consisting of visits to and studies of various local terrestrial and aquatic communities. 4 lab.

**477 Population Biology (4)**

Prereq: 325 and Math 163A or equivalent. (fall) *W. Hummon*. Quantitative aspects of genetics and ecology of both plant and animal populations, with emphasis on a conceptual framework and its application to natural population. 4 lec.

**478 Population Biology Laboratory (3)**

Prereq: 477 or with 477, perm. (fall; alternate yrs) *W. Hummon*. Laboratory exercises designed to illustrate experimental bases of principles discussed in 477. 6 lab.

**479 Evolution (4)**

Prereq: 325. (winter) *H. Seibert, G. Svendsen*. Current concepts of evolutionary processes; sources of variability, adaptation, speciation, co-evolution, phylogeny and ascendancy of man. 4 lec.

**480 Biological Research Methods (2-4)**

Prereq: perm.

**480A Microscopy and Photomicrography (2)**

Prereq: perm. (spring; upon demand) *W. Peterson*. Principles, techniques and applications of

light microscopy including darkfield, phase-contrast, polarizing, fluorescence and interference-contrast methods. Introduction to techniques of recording microscopic images.

**482 Topics in Zoology (1-6, max 8)**

Prereq: 20 hrs of zoology including 203; 2.5 gpa in major courses, perm. Individual or small group study of specialized topics in zoology under supervision of instructor.

**485 Undergraduate Research (1-3, max 12)**

Prereq: 20 hrs and 2.5 gpa in zoology, perm from specific professor. Independent research under supervision of staff member.

**H485 Undergraduate Research (1-4, max 12)**

Prereq: H484, 3.0 gpa in sciences, perm from specific professor. Individualized and directed research. Students select topics or are directed into possible research areas.

**H495 Undergraduate Research (Thesis)  
(3-9, max 15)**

Prereq: H485, 3.0 gpa in sciences, sr rank. Independent departmental honors research under supervision of staff member. Student should enroll the qtr he expects to complete his thesis.



# Faculty and Administration



## Departmental Faculty

This listing of Ohio University's faculty was compiled and verified by the Office of the Executive Vice President and Dean of Faculties as of May, 1975. The regional campus faculties are listed separately after the main campus faculty.

### Accounting and Quantitative Methods

*Prof:* Arthur Kraft, Warren H. Reininga, William Voss (chairman)

*Assoc. Prof:* Thomas W. Bolland, Frederick G. Davis, Paul R. Dunlap, C. B. Stephenson

*Asst. Prof:* James S. Cox, Abdul W. Hammood, Ellsworth J. Holden, Donald V. Stuchell

*Lect:* William D. Kelton (part-time)

*Instr:* H. Kent Bumpass (part-time), Teresa C. Chen

### Administrative Sciences

*Prof:* Victor A. Grieco, S. Benjamin Prasad, Robert S. Raymond, Scott D. Walton (chairman)

*Assoc. Prof:* Azmi D. Mikhail, Kahandas N. Nandola, Harlan E. Patterson, Dwight A. Pugh, David Richmond

### Aerospace Studies

*Prof:* Drexel B. Cochran (chairman; visiting)

*Asst. Prof:* Kent Freshwater (visiting)

*Lect:* Charles W. Brown (visiting)

### Architecture

*Asst. Prof:* Jose Barrio-Garay (director)

*Instr:* Francis Ching, Stephen Sachs

### Art

*Prof:* John Baldwin, David Hostetler, William Kortlander, Henry Lin, Dana Loomis, Clifford McCarthy, Donald Roberts

*Assoc. Prof:* Jose Barrio-Garay (director), Robert Borchard, Aethelred Eldridge, Michael Harper, Abner Jonas, David Klahn, Ronald Kroutel, Edward Mayer, Gary Pettigrew

*Asst. Prof:* Dennis Adams, Terrill Eiler, Arnold Gassan, Karen Nulf, Judith Perani, Gary Schwindler (visiting), Douglas Thompson, Daniel Williams, James Winebrenner

*Instr:* Mary Manusos, David Silverman, Carolyn Bennett Thomas

*Lect:* Walter A. Allen

### Aviation

*Assoc. Prof:* Francis Fuller (chairman)

*Instr:* Lance Dale

*Lect:* Joan Mace

### Black Studies

*Dean:* James F. Barnes

*Assoc. Prof:* Francine C. Childs

*Asst. Prof:* Lindiwe M. Pettiford

*Instr:* Adriane M. Livingston, Antar S. K. Mberi, Rodney D. Sampson

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# Ohio University Bulletin

Ohio University, Athens, Ohio 45701

Second Class Postage

Paid at Athens, Ohio







Paul Brinkford

September, 1975

# Ohio University Bulletin

for Prospective Students





Volume LXXII, Number 6, September 1975. Published by Ohio University, 51 Smith Street, Athens, Ohio 45701 in February, April, June, July, August, and September. Second Class postage paid at Athens, Ohio.

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for Prospective Students



The fees, programs and requirements contained in this bulletin are necessarily subject to change without notice at the discretion of the University.

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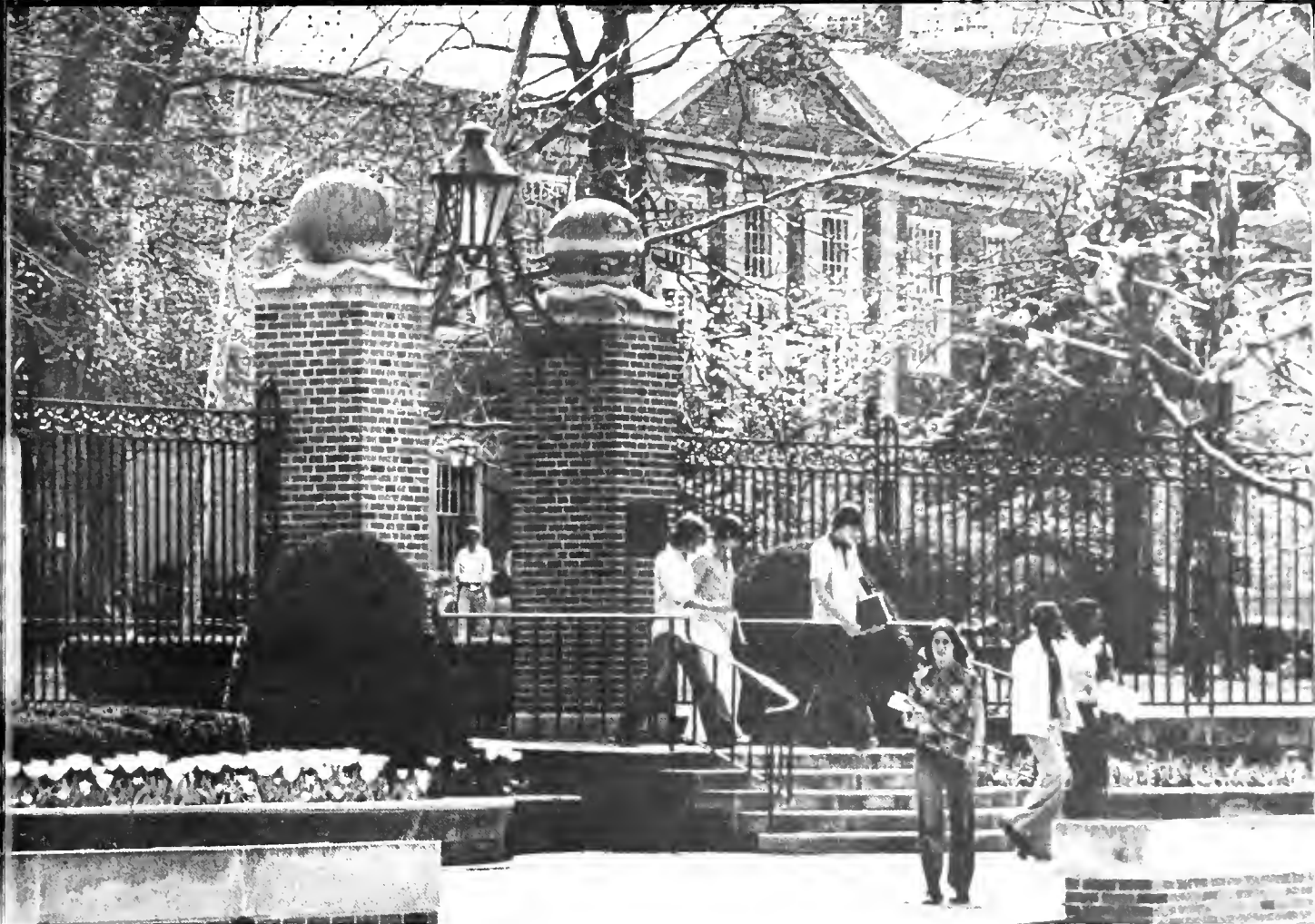
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## The Campus and Locale

The charm of tree-lined brick walkways on Ohio University's College Green makes one feel as if one were at a small college rather than a large university. Much of what goes on at Ohio University has this personalized feeling, a unique trait for a school of its size.

The City of Athens, home of the University, contributes to this atmosphere of warmth. It's a small city where people still smile and say hello on the streets. Athens is located about 70 miles southeast of Columbus, on the banks of the Hocking River, surrounded on the hills and in the valleys by small farms and woodlands. The intel-



lectual and cultural intensity of the University could have no better setting for privacy or meditation when it is needed.

The heritage of Ohio University goes back to the 18th century and the Ordinance of 1787, which included a provision for establishing the school. The University was actually founded in 1804, making it the first institution of higher learning in the old Northwest Territory that includes the present states of Ohio, Michigan, Indiana, Illinois, Wisconsin and Minnesota.

The three oldest buildings on the College Green, red brick structures with wooden shutters, date from the early 19th century and are fine examples of Georgian architecture. One of them, Cutler Hall, in the center of campus, was built in 1816 and is now a National Historic Landmark.

The University provides a wide range of cultural activities for not only the Univer-

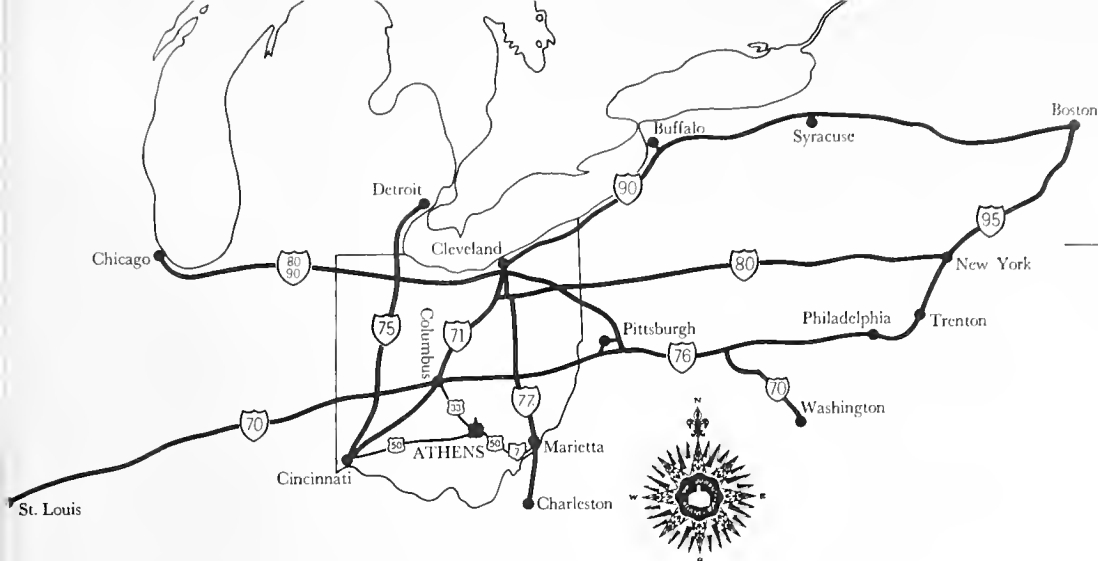
sity community but for all of southeastern Ohio. On a given day you may choose among several appealing diverse possibilities. All of the lecturers, poets, singers, dancers, films and theater or music groups appearing on campus are available within walking distance of the residence halls. Many events are free, though some do have nominal charges.

There are 12 state parks and thousands of acres of state and national forest within easy driving distance of the campus. The parks have facilities for swimming, boating, camping, hiking, picnicking and fishing. When you need to get away, it's possible to walk for hours in the woods without running across dwellings, cars or other people. But if you really need a taste of city life now and then, Columbus and Cincinnati are within reasonable driving distance.



PHOTO BY CHUCK DAILEY





## VISITS TO CAMPUS

The best way to know what our educational setting is like and whether it might be the right environment for your education is to visit our campus. You and your parents may wish to talk to faculty members, explore the seven-story Alden Library and visit the Convocation Center and entire athletic complex, home of many championship Mid-American Conference Bobcat teams. There's no better way to see what the living accommodations are like than to visit one or more of the three residential areas known as greens that surround the main campus. The greens are separate neighborhoods or communities within the University, adding to the personalized atmosphere of the Athens campus.

An admissions field representative can schedule appointments for you with faculty in your field of interest; or you may wish to fill in the return post card on the inside back cover of this bulletin or write directly to the Admissions Office, Chubb Hall, Ohio University, Athens, Ohio 45701. Guides are available year round and though appointments are preferred they are not required. Daily tours start at the Admissions Office in Chubb Hall at 10 a.m., Monday through Saturday and at 2 p.m. Monday through Friday. Saturday and Sunday tours begin at 2 p.m. in the lobby of Baker Center. The Admissions Office is open from 8 a.m. to 5 p.m., Monday through Friday, and from 9 a.m. to noon on Saturday.





## The Student Body

While the setting is an important background for the college experience, the people with whom you will be living, working and studying should be a central concern.

We can safely say that a typical Ohio University student cannot be found. The one characterization we can apply to the student body is that it is culturally diverse. The exposure to other races, nationalities, religions and ethnic groups is a basic part of an educational experience. Life in a city usually doesn't provide the day-to-day contact you're likely to have with students from all over the U.S., as well as from Africa, Asia, Europe and other parts of the world.

The cultural diversity is enhanced by two specific academic programs whose courses are open to students from all areas of the University. The Black Studies Institute provides a black perspective in history, psychology, sociology, education and the humanities and leads to a bachelor of science degree in Afro-American studies. The Center for International Studies offers a certificate, regardless of major, for students interested in the Foreign Service, the Peace Corps, international business, international education, graduate study of Africa, Asia or Latin America, or for those who simply wish to obtain a better understanding of the world.

A further step along these lines is the International House within the dormitory





system which allows roughly equal numbers of international students and American students to live together in the same building, sharing each other's cultural heritage.

No matter whom you choose for your friends, the cross-section of people you're likely to meet is much more varied than what you would normally find in the general population. The points of view coming from different cultures, as well as the possibility of lasting personal relationships, will be invaluable to you here as well as in later life.

The special needs of women have also been taken into account in both academic and extracurricular programs. The English, government and history departments offer courses geared to women's problems, taught by female as well as male faculty. Many programs and speakers of interest are offered each year and women have recently regained admittance to Ohio University's nationally known marching band.

Another way in which the University has taken into consideration the needs of a minority group is in the establishment of the Lindley Student Center. Though developed to accommodate the unique interests and needs of black students, the center is not exclusively for blacks. One purpose in establishing the center was to give white and international students an opportunity to experience what people in another cultural group enjoy.

*Affirmative Action Policy.* It is the policy of Ohio University that there shall be no discrimination against any individual because of race, color, creed, national origin, sex or handicap in educational programs, activities and employment practices. Also, there shall be no discrimination because of age except in compliance with age requirements of retirement plans or state and federal laws and guidelines.

The University conducts a vigorous affirmative action program in order to promote equal employment opportunities.



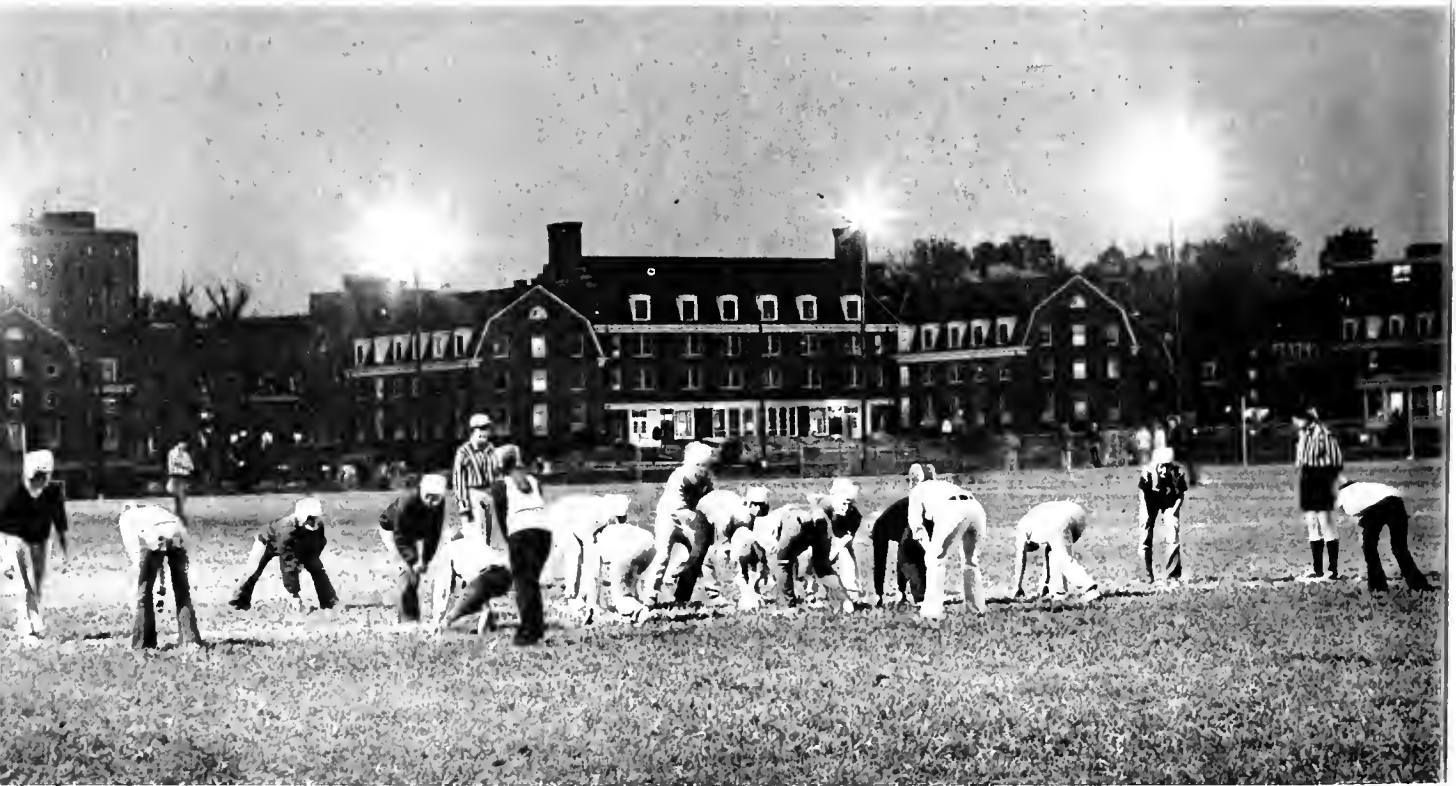


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## Student Activities

As we said earlier, a typical Ohio University student cannot be found. The students are distinguished by their individuality as well as their maturity. Their education extends well beyond the classroom. Athletic and cultural events can all be important parts of a person's learning experience.

University and student organizations regularly bring speakers and performing artists to campus. Among those who spoke or read here recently are James Earl Jones, Strom Thurmond, Gloria Steinem and Isaac Bashevis Singer. The University Artist Series has brought the Israel Chamber Orchestra, Preservation Hall Jazz Band, National Theater for the Deaf, Noh-Kyogen Theater of Japan and the Viola Farber Dance Company among others. Popular performers have included Richie Havens, Pure Prairie League, Dave Mason, Linda Ronstadt and Jonathan Edwards (who started out professionally in Athens).

The Student Life Office assists in scheduling programs for Women's Week, International Week, Black Awareness

Week, Education Week and Communication Week.

In addition, approximately 150 organizations are active on campus. Greek, honorary, departmental, professional, recreational, volunteer and special-interest groups are included. Many significant honor societies have chapters on campus. These include Phi Beta Kappa and Phi Delta Kappa among others. Opportunities to do volunteer work in Athens and surrounding communities are offered through the Student Life Office. If you can't find a group that appeals to you, it's not hard to start your own.

The nondenominational Galbreath Chapel on campus is a multi-purpose religious center open to all faiths. The United Campus Ministry, sponsored by six Protestant denominations, offers counseling in such problems as adjustment, pregnancy, sex and drugs as well as other human concerns. In addition, the Hillel Foundation holds services and sponsors programs of interest to the community as do ten denominational churches in the area.



## INTERCOLLEGIATE ATHLETICS

Ohio University belongs to the Mid-American Conference, which includes Miami University, Bowling Green, Toledo, Kent State, Ball State, Northern Illinois, Eastern Michigan, Central Michigan and Western Michigan. Men's varsity sports include football, basketball, baseball, track, cross country, swimming, wrestling, golf, tennis and soccer. The OU Bobcats also compete against many out-of-conference teams around the country. Students are admitted free to all home games.

Women's Intercollegiate Athletics (WICA) is active in the following varsity sports: basketball, softball, field hockey, swimming, tennis, volleyball, track and field, lacrosse and golf. WICA is a new, expanding program and invites participation by all women, regardless of major.

The West Green is the site of the athletic complex. The multimillion dollar Convocation Center not only serves as the major southeast Ohio sports arena, it is also the site of many concerts.

PHOTO BY DEBBIE MCDANIEL





## RECREATION

Opportunities to participate in various intramural sports are provided by one of the most extensive programs in the country. Teams formed from organizations and other groups compete in sports such as soccer, golf, archery, volleyball, table tennis, softball, indoor track and shuffleboard.

There are also several club sports at the University, including hockey, lacrosse and rugby. The Ohio University karate club is a national champion.

University athletic facilities include gymnasiums, an indoor ice-skating rink, lighted tennis courts and intramural fields, an indoor swimming pool and areas for horseshoe pitching and softball.

Baker Center (the University student center) provides facilities for bowling, billiards and table tennis, as well as rooms for student meetings and campus-wide social and cultural events. Baker Center also has a snack bar, cafe, lounges and study areas, ballroom, card rooms, a music listening room and offices for student government and student activities.

An average of four movies are shown on campus each week. Some are first-run films of a year or two ago, while others are foreign film classics and experimental movies. The showings are sponsored by campus organizations at reduced prices.





## ACTIVITIES FOR A TYPICAL WEEK

### Monday April 7

All Week	Africa Week	
All Day	Painting Exhibit through April 12th	Hillel House
5:00 p.m.	Africa Week Procession	Shively Hall
8:30 p.m.	Graduate Trumpet Recital: Matt Springfield	Recital Hall
5:30, 6:30 p.m.	O.U. Karate Club	Grover Center

### Tuesday April 8

1:00 p.m.	Contemporary Health Issues	Health Center
1:00 p.m.	Golf—West Virginia University	Country Club
7:00 p.m.	Student Financial Aid Information Session	Irvine Hall
8:00 p.m.	Japanese Noh-Kyogen Theater	Memorial Auditorium
8:00 p.m.	Lecture: Meno Lovenstein	Jefferson Hall
8:00 p.m.	Resumé Clinic by Senior Class	Lindley Hall
8:00 p.m.	Slides, Lecture of African Drought Speaker: Bob Walter	Shively Hall

### Wednesday April 9

1:00 p.m.	Contemporary Health Issues	Health Center
3:00-5:00 p.m.	Rap Session	John Coltrane Lounge
7:00 p.m.	Student Financial Aid Information Session	Irvine Hall
7:30 p.m.	Black Perspectives	Morton Hall
8:00 p.m.	Lecture: Mustafa Sam, Asst Exec. Secretary of OAU to the UN	Shively Hall
8:00 p.m.	Movie: "The Ruling Class"	Memorial Auditorium
8:30 p.m.	Clarinet Recital: Carol Stinson	Recital Hall
8:30 p.m.	Spanish Conversation Hour	Lantern Basement

### Thursday April 10

3:00 p.m.	Lecture: "Our Thinking and Our World" James Spencer	Alden Library
6:00 p.m.	Dinner Theater: "Gingerbread Lady"	Baker Center
7:30 & 9:30 p.m.	Movie: "Je T'aime"	Seigfred Auditorium
8:00 p.m.	Preservation Hall Jazz Band	Memorial Auditorium

### Friday April 11

3:15 p.m.	Baseball—Dayton	Trautwein Field
4:00 p.m.	WICA—Softball with Wright State	WICA Field
4:00 p.m.	Lecture—Tomoyasu Tonaka	Morton Hall

### Saturday April 12

2:00 p.m.	WICA—Softball with Akron	WICA Field
2:00 p.m.	Lacrosse—University of Michigan	Peden Stadium
4:00-9:00 p.m.	Africa Week Dinner, Cultural Show	Shively Hall







PHOTO BY STEVE HASEL





## Residence Hall Life

As a freshman and sophomore, you will find the center of your life to be your residence hall. Your green will be your neighborhood or residential community. On each green a number of halls have been reserved exclusively for upperclassmen. Others have been designated solely for the incoming freshman. As a freshman, you will live on either the East or West Green. You will eat in your community, for dining halls are located on all four greens.

Designed to meet the needs of incoming freshmen, the Freshman Residential Program provides increased opportunities for interaction among the faculty, staff and other students. Although University services are provided in all residence halls, increased guidance, leadership and service programs operate in the freshman buildings. There are increased academic advising services, more career planning assistance, learning skills workshops, human sexuality workshops, personal growth groups, leadership training, special tutoring and many opportunities to share both as a leader and as a participant or both in programs designed for and by new students.

Residence-hall living can be exciting but sometimes distracting. A quiet-hours policy helps minimize the distractions and provides an opportunity to establish the policy for your building once the student government is elected for the hall. Each hall has a professionally trained resident director.

The Housing Office determines room assignments, which are usually doubles. You may choose the residence hall (from those participating in the Freshman Residential Program) by stating your choice on the Acceptance Agreement. You may choose your roommate as well.

As your freedom to choose courses increases, so does your opportunity to choose where you wish to live. At the end of your sophomore year (completion of 90 hours) you may choose whatever housing you wish, on or off campus. If you pledge a fraternity or sorority, however, you may apply to live in a Greek house once you have achieved sophomore status with 45 credit hours. (Note: Students will be informed of rule and policy changes in the Freshman Residential Program at the precollege orientation or upon their arrival to the residence halls in September.)

## Individual Counseling

At Ohio University, we believe that education works best when it is suited to your individual needs and goals, whether you are an undergraduate or graduate student. When you enter the University, you may already know that you want to be an accountant or an electrical engineer. On the other hand you may not be sure if you want to go into archaeology or, perhaps, the fine arts. Whatever your situation, counseling is available on many levels to help you chart your course.

First, admissions counselors can help you decide if Ohio University is the place for you. Faculty advisors in all departments can help you decide whether or not you've chosen the appropriate field; or if you're a student without a precise career choice, University College counselors can be of assistance. University College also offers a bachelor of general studies degree, which allows you to structure your own degree program, taking a wider variety of courses than would be possible through a major.

Assistance on a variety of subjects by Counseling and Psychological Services is provided. They can help you with career counseling, occupational information, educational counseling and personal adjustment problems, on a confidential basis. Individual or group counseling and psychological therapy are available. Should you encounter a problem that cannot be solved through regular University channels, the University ombudsman may be able to help you.



## Placement and Internship Service

No matter what your class rank is, you may want to speak with counselors in the Placement and Internship Office. If you're unsure of the kinds of careers available to you once you've chosen a major, they can help you evaluate the present job market possibilities. They conduct slide presentations and mini-seminars on how to search for a job, how to conduct yourself during interviews and how to prepare your resumé. They also have a series of self-help guides and a guide to self-evaluation in the job market.

This past year there were more recruiters from business, industry and education though the economy was down. Over 300 recruiters visited campus, including national corporations from New York, New Jersey, California and Texas and the school district of New South Wales, Australia. Students have access to an extensive library of career information which includes application forms for state, federal and private employment, graduate schools, civil service test information, job descriptions, graduate school catalogs and telephone directories of 80 percent of our national metropolitan areas.

Last year, the Placement Office helped place 99 percent of the University's engineering graduates in good jobs, and 86 percent of last year's teaching graduates are now teaching. Since many summer employers actively recruit on campus, the Placement Office is a source of summer jobs as well.

Higher education can mean many things to many people. It can mean learning specific skills for a particular career, learning how to analyze and communicate as well as discovering who you are in an interesting and complex environment. Whatever your goals may be, good counseling is available at Ohio University on many levels to help you find what is best for you.







## Colleges and Academic Programs

If you have an area of interest, you are admitted directly to the degree college of your choice and assigned a faculty advisor. If you have decided on a college but not a major, you may go directly to that college. If you're undecided or wish to explore several academic areas, you may be admitted to University College. There are no freshman course requirements common to all students; if you have a tentative major, refer to the requirements outlined in the undergraduate catalog.

Regardless of your major or college, you will spend a lot of time in Alden Library. The seven-story library houses about 800,000 volumes including periodicals and government documents. Current issues of over 6,375 periodicals and newspapers are available, plus nearly 500,000 microform units. Professional librarians are pleased to help you find any reference materials or books you need.





## HONORS TUTORIAL COLLEGE

Although it is a new program, the Honors Tutorial College epitomizes many of the University's goals by providing a small college within the facilities of the larger University. The program, based upon the system used at Oxford and Cambridge (in England), is the only one of its kind in the United States. The tutorial method offers the greatest challenge possible to the academically and creatively gifted student: the opportunity to work with faculty on a one-to-one basis. When you enter, you are assigned a director of studies who coordinates your program, but you work primarily with one or more faculty tutors in your area of interest, meeting with them one or more times a week.

Admissions standards are high — students in the program averaged 1,370 on their SATs. In the three years the program has been in existence, the number of National Merit Scholars on campus has increased four times. Some current tutorial students have turned down acceptance by prestigious schools to be able to participate in this unique program at Ohio University.

At present, the Honors Tutorial College offers a bachelor of science or bachelor of arts degree in botany, chemical engineering, chemistry, economics, English, government, history, mathematics, mechanical engineering, modern languages, philosophy, physics, psychology and social work.

Tutorial students live together in a residence hall on the South Green. This close personal contact acquaints a student with the fields other students have chosen.









## COLLEGE OF ARTS AND SCIENCES

The College of Arts and Sciences offers the bachelor of arts (AB) and the bachelor of science (BS) in numerous areas, some of which are offered jointly with other colleges of the University. The various curricula offer preparation for particular careers and for advanced professional study. While completing a degree program, a student may fulfill the State of Ohio's requirements for secondary school certification. Concentration in a major usually begins in the junior and senior years. A minor is not required, but a minor in business administration is available.

### *Degrees and Majors*

A major for the AB degree may be completed in the following areas:

Anthropology  
Botany  
Chemistry  
Classical Languages (Latin)  
Computer Science  
Economics  
English Language and Literature  
Geography  
Geology  
Government  
History  
Mathematics  
Modern Languages  
    French  
    German  
    Russian  
    Spanish  
Philosophy  
Physics  
Psychology  
Social Work  
    Mental Health Technology  
Sociology  
Zoology

Arts and Sciences students can complete the following majors outside the college, earning the AB degree:

Art  
Home Economics  
Interpersonal Communication  
Journalism  
Music  
Theater

A major for the BS degree may be completed in the following areas:

Botany  
Chemistry  
Computer Science  
Geography  
Geology  
Mathematics  
Physics  
Zoology

Arts and Sciences students may complete a BS degree outside the college in home economics. A two-year (AAS) degree in mental health technology is available through the Social Work Department.

*Special and Preprofessional Curricula*

Astronomy—physics major  
Botany—botany major  
Creative Writing—English major  
Dentistry—zoology or chemistry major  
Environmental Biology—botany or zoology major  
Forestry—botany major  
Government Foreign Service—government or history major (government recommended)  
Law—major open to student's selection (government or history recommended)  
Linguistics—major open to student's selection  
Mathematics—mathematics major  
Mathematics, applied—mathematics major  
Medical Technology—zoology major  
Mental Health Technology  
Medicine—chemistry or zoology major  
Microbiology—zoology major  
Optometry—zoology major if degree program is followed  
Pharmacy—chemistry or zoology major if degree program is followed  
Physical Therapy—psychology or zoology major  
Physics—physics major  
Physics, applied—physics major  
Social Work  
Teaching (secondary)—major in appropriate field  
Theology and Religion—major open to student's selection (English, philosophy or history recommended)  
Veterinary Medicine—zoology major  
Water Resources—geology major









## COLLEGE OF BUSINESS ADMINISTRATION

The primary objective of the college is to prepare students seeking careers in business, government and nonprofit organizations. The core curriculum leading to a bachelor of business administration degree provides an understanding of legal procedures, economics and behavioral science, communication skills, accounting and quantitative methods. Introductory courses in finance, production and marketing are also included. To broaden their backgrounds, students are required to take a minimum of 40 percent of their courses in nonbusiness areas. These courses would be taken primarily during the first two years, before the professional concentration begins.

Business Administration majors:

- Accounting
- Business Economics
- Finance
- General Business
- Management
- Marketing
- Quantitative Methods





## COLLEGE OF COMMUNICATION

The College of Communication prepares well-equipped graduates for professional careers in journalism, broadcasting, telecommunications, organizational and interpersonal communication and in therapy for communication disorders. Degrees are offered through the schools of Journalism, Radio-Television, Interpersonal Communication and Hearing and Speech Sciences. The degrees offered are: bachelor of science in communication, bachelor of science in hearing and speech sciences and bachelor of science in journalism.

Students have the opportunity to report and edit for *The Post* (the student daily newspaper), *The Messenger* (the Athens daily), the University yearbook and the *Athens* magazine. The Telecommunications Center offers a variety of writing, editing and broadcasting experience through WOUB-AM and -FM radio and WOUB-TV, which all belong to the Public Broadcasting System.

The College of Communication annually sponsors Communication Week which draws noted media figures to the campus for speeches, seminars and discussion. Guests have included James Reston, Shana Alexander, Walter Cronkite and Harry Reasoner.



PHOTO BY CHARLIE NYE







## COLLEGE OF EDUCATION

The College of Education prepares people for careers in elementary education, secondary education, special education, physical education and recreation, home economics and nursing. If you want to teach in public school, you may enroll in either the College of Education or another degree-granting college.

The degrees offered through the College of Education are the bachelor of science in education (elementary, secondary or special) and the bachelor of science in home economics (through the School of Home Economics). A bachelor of science in nursing for registered nurses is offered through the School of Nursing. A bachelor of science in education with school nurse certification is also offered. In addition, a bachelor of science in education with a major in comprehensive business education is offered, preparing the student for teaching secretarial and related business courses on the high school level.

The School of Health, Physical Education and Recreation (HPER) offers certification in health and physical education. Noncertification majors are offered in recreation and community health services. Minors are available in coaching and recreational leadership, physical and health education. A major in HPER prepares students for teaching in elementary or secondary school and for work as coaches, playground directors, camp counselors or recreation leaders for industrial concerns and municipalities. In addition, a program has recently been created, preparing both men and women to become athletic trainers. It is the only such program in Ohio that meets the National Athletic Trainers Association's requirements for certification.

### *Education Curricula*

Art Education  
Bookkeeping/Basic Business  
Business Education, Comprehensive  
Communications Comprehensive—Speech Emphasis  
Communications Comprehensive—English Emphasis  
Elementary Education  
English  
Family Life Education  
General Speech—Interpersonal Communication Emphasis  
General Speech—Theater Emphasis  
Health Education  
History—Modular Social Studies  
Industrial Arts  
Latin  
Mathematics  
Modern Languages  
Music Education—Instrumental Emphasis  
Music Education—Vocal Emphasis  
Physical Education—Men  
Physical Education—Women  
Science Modular Program  
Social Psychology  
Learning Disabilities and Educable Mental Retardation  
Speech and Hearing Therapy

### *Home Economics Curricula*

General Home Economics  
Consumer Service and Education  
Consumer Service  
Education  
Human Development and Family Ecology  
Human Environment and Design  
Furnishings and Design  
Textiles and Clothing  
Human Nutrition and Food Science  
Home Economics Programs for International Students

### *HPER Noncertification Curricula*

Community Health Services  
Recreation

### *Nursing Curricula (for Registered Nurses only)*

Baccalaureate Program in Nursing  
School Nurse Program



## COLLEGE OF ENGINEERING AND TECHNOLOGY

The College of Engineering and Technology offers the bachelor of science degree in chemical engineering, civil engineering, electrical engineering, industrial and systems engineering, mechanical engineering and industrial technology. All engineering programs are fully accredited by the Engineers Council for Professional Development, the national accrediting society.

While completing required courses in the major field, students may select the remaining technical courses from a wide range of electives in more specialized topics or areas. This flexibility enables students to concentrate studies in a chosen area or choose a well-rounded program in preparation for graduate work.

Entering students may apply for direct entry into the college of engineering and technology. This assures the assignment of a faculty advisor from the department of the student's choice. Those students who plan to major in engineering but are undecided as to the particular engineering discipline should indicate this on their admissions application. They will be advised by the assistant dean until a choice of major is made.





## COLLEGE OF FINE ARTS

The College of Fine Arts is composed of the schools of Art, Dance, Music and Theater; the Department of Comparative Arts, and the Department of Film. The bachelor of fine arts degree is awarded in areas of the visual arts, dance, design and theater. Music majors earn the bachelor of music degree.

Entering freshmen may apply for direct entry to the college. Direct entry applicants should audition or submit portfolios for admission into particular programs.

A major in dance prepares students to meet the need for highly trained teachers in educational institutions, private studios and theater groups.

The School of Music offers opportunities for individual as well as group recitals. There are many performing groups open to students, who do not have to be music majors. These groups include the Marching, Symphonic, Concert and Varsity bands, the Wind Ensemble, the University Chorus, the Ohio Singers, the Ohio University Chorale, the Symphony and Chamber orchestras, the Brass and Trombone choirs, the Jazz and Percussion ensembles and chamber music groups for strings, woodwinds or brass.

The School of Theater offers acting and production training in its regular drama series, experimental theater series, the Ohio Valley Summer Theater and the University-sponsored Monomoy Theater in Chatham, Massachusetts.

### *Fine Arts Majors*

#### Art

- Art Education
- Art History
- Ceramics
- Graphic Design
- Painting
- Photography
- Printmaking
- Sculpture
- Additional work in glass, film, jewelry, weaving and drawing

#### Dance

#### Music

- Applied Music
  - Orchestral Instruments
  - Organ
  - Piano
  - Voice
- Music Education
  - Instrumental
  - Vocal
- Music History and Literature
- Music Theory and Composition
- Music Therapy

#### Theater

- Acting
- Production Design
- Comprehensive Theater







## UNIVERSITY COLLEGE

If you are undecided about your career direction and wish to explore a variety of academic options or if your needs are special and you want a college that encourages experimentation, University College offers a wide variety of two- and four-year degrees, counseling and special programs.

Two-year or associate degree programs are available through direct entry in University College. The college offers associate in arts (AA), associate in applied business (AAB), associate in applied science (AAS) and a self-structured associate of individualized studies (AIS) degrees. Unlabeled AA degrees are available in such programs as child development; textiles and clothing; housing, furnishings and management, and environmental studies and banking. Two-year technical programs offered at specific campuses are law enforcement (Chillicothe), real estate (Chillicothe), human services technology (Chillicothe), library technical assistant (Lancaster), general secretarial (Lancaster and Chillicothe), radio-television (Zanesville), aviation (Athens—in the College of Engineering and Technology) and mental health technology (Athens—in the College of Arts and Sciences).

The Bachelor of General Studies Program is for the student with high motivation, an exceptional background or an unusual combination of talents and interests. It is for the student who seeks self-discovery and a nontraditional approach to education. A student structures his or her own degree program by selecting an area of concentration and taking a minimum of 45 hours of coursework in that area.

ROTC is also under the jurisdiction of University College. ROTC offers two courses: Aerospace Studies and Military Science. Two- and four-year courses are offered in each program. Financial assistance is available to Air Force or Army cadets in the form of scholarships, and a monthly subsistence allowance is paid to all advanced-course cadets.

Another service run by University College is *Precollege*, a program of academic orientation designed to acquaint freshmen and their parents with the University. It results in a completed schedule and registration for each student. *The Student Development Program* helps students master college-level work through counseling, tutoring, reading and writing improvements as group instruction in special subjects. These services are free.





## ADDITIONAL ACADEMIC PROGRAMS

### *Center for Afro-American Studies*

The Center for Afro-American Studies is composed of the Black Studies Institute and the Black Resource Center. The Black Studies Institute is an academic program providing a black perspective in history, psychology, sociology, education and the humanities and leads to a bachelor of science degree in Afro-American studies. The Black Resource Center provides services to meet the needs of the black community, including academic, occupational, financial and personal counseling and a free tutoring program.

### *Center for International Studies*

The Center for International Studies offers a certificate, regardless of major, in African, Southeast Asian or Latin American studies designed to supplement a major field. The certificate is intended for students interested in the Foreign Service, the Peace Corps, international business, international education, graduate study of Africa, Asia or Latin America, or for those who simply wish to obtain a better understanding of the world.

### *Regional Campuses*

Ohio University's four regional campuses in southeastern Ohio are the sites of many of the two-year programs leading to the various associate degrees. The campuses are located in Belmont County, Chillicothe, Lancaster and Zanesville. Day and evening courses are offered, and the level of academic instruction and admission policies are the same as for the Athens campus. We also have an academic center in Ironton.





## Admission Information

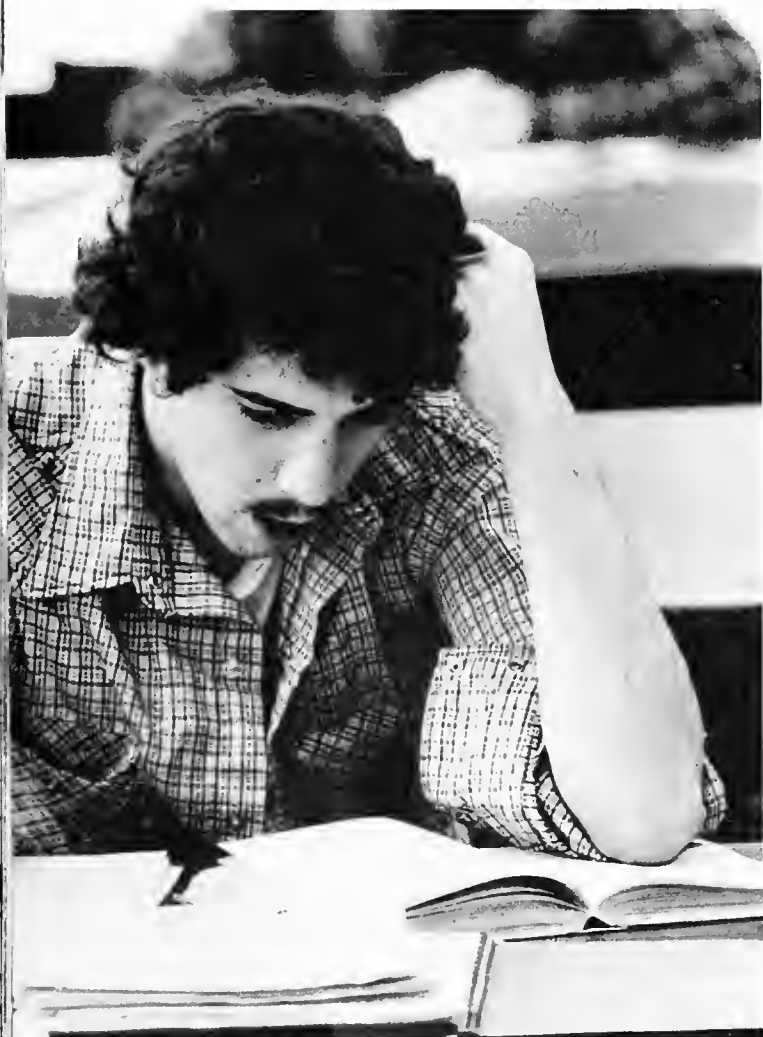
### *When to Apply*

You may apply for admission to undergraduate study following your junior year in high school. Applications are available from the Office of Admissions, Chubb Hall, Ohio University, Athens, Ohio 45701. (You will need a social security number for most forms and registration.)

New students are admitted at the beginning of each quarter. Fall quarter opens the fourth week in September, winter quarter opens the first week in January and spring quarter opens the fourth week in March. Summer session consists of two terms, opening the third week in June and the fourth week in July.

April 1 is deadline for submitting applications for the fall quarter. Applications for other terms are accepted up to one month before classes begin.

Although a particular pattern of high school subjects is not required, we strongly recommend that you plan your high school schedule to include the following: three years of English, two years of a foreign language, two years of social science, two years of laboratory science, one year of algebra and one year of plane geometry. While these courses are not required for admission to the University, they are often prerequisites for required University courses. These courses may be taken at the University, but many of them are considered remedial courses for particular areas and do not contribute credits or points toward graduation. The necessity of making up these courses on the University level may prolong your time at Ohio University beyond the normal four academic years.



### *Freshman Applicant*

If you have or soon will have a secondary school diploma and have not been registered as a full-time student or enrolled for 12 or more credit hours in a post-secondary institution, you apply to Ohio University as a freshman.

Residents of Ohio are admitted as regular full-time and special part-time freshmen to the quarter and campus of their choice. Residents of states other than Ohio are normally considered only for full-time study and must meet higher academic standards.

To apply, file an application for admission accompanied by a \$20 nonrefundable fee, a transcript of all previous high school coursework and grades including rank in class and required test results. All applicants must submit results of either the Scholastic Aptitude Test (SAT) or the American College Test (ACT).

If granted provisional admission, you will receive a residence hall contract after March 1 and a form for submitting your final high school grades if they were not included on the initial transcript. Within about six months of the expected date of your enrollment, you also will receive a medical report form. Once these three forms are completed and returned, final approval for registration can be granted.

### *Early Admission*

The University admits a limited number of students each year who have accelerated

their high school programs and wish to enter before completing the high school diploma. To be eligible for early admission the student must have two or fewer units to complete for the diploma, have a B average or higher, have satisfactory test results on the SAT or ACT (normally 1000 total SAT or 25 composite ACT), have a strong recommendation to the program by the high school principal or guidance counselor and have the approval of the director of admissions. The student must also make arrangements to secure the high school diploma by the beginning of the sophomore year or secure the High School Equivalency Certificate by taking the General Education Development Test.

#### *Transfer Student*

If you have been or are registered as a full-time student or have taken 12 or more credit hours at another college or university, you apply to Ohio University as a transfer applicant. To receive a degree, a transfer student must spend at least one academic year in residence and have successfully completed at least 45 hours of work at Ohio University.

#### *Special Student*

If you wish to carry a limited number of courses but are not interested in a degree program for the time being, or do not meet the minimum requirements for admission

as a full-time student, you may apply for admission as a special student.

A \$10 nonrefundable fee is required.

#### *Medical Requirements*

A completed medical history report form (including indication of proper immunization against tetanus within the past ten years) is required for final admission to Ohio University. The proper form will be mailed to you after you have been provisionally accepted. You are required also to take a tuberculosis skin test upon your arrival on the campus.

A continuous health record is maintained on each student by the University Medical Services and is held in strict confidence. No medical information is released to anyone without the specific written request and authorization of the patient involved.

Medical services on campus are provided primarily at the Hudson Health Center. The health service is accredited by the American College Health Association and is staffed by full-time physicians, a dentist, a pharmacist, registered nurses and other personnel.

A major medical insurance plan designed to supplement the care provided by the University Medical Services is mandatory for every student registered for more than six credit hours unless the student submits evidence that he or she is covered by a comparable private insurance plan.



OHIO UNIVERSITY 180  
CLASS GATEWAY

Religion morality and knowledge  
being necessary to good government  
the happiness of mankind  
and the means of education  
forever be encouraged



## Financial Aid

Ohio University assists students in furthering their education by providing four types of financial aid: scholarships, grants, loans and employment. Information about any financial aid is available from the Director of Student Financial Aids, Ohio University, unless otherwise specified.

### SCHOLARSHIPS

Incoming freshmen who have demonstrated exceptional abilities are eligible for a variety of scholarships, awarded on the basis of high school achievement.

The criteria used for the awarding of these freshman scholarships will depend on the student's intended major. However, in general, consideration will be given to academic background and preparation for college study, class rank and test scores, outside interests and activities, and any specific talents the student may possess. In areas such as art, athletics, creative writing, dance, debate, music, radio-TV or

theater, students may also be required to audition or to submit portfolios to qualify for scholarship consideration.

As upperclassmen, students must meet specific criteria for grade point average and scholastic success in order to continue receiving these scholarships.

The three types of continuing awards for which freshmen may be eligible are:

*Corporate Scholarships.* Available to students majoring in specific academic areas (engineering, business, sciences) on the basis of high academic achievement. Eligibility for these awards normally requires demonstrated financial need. Scholarships range from \$300-\$2,000 annually.

*Endowed Scholarships.* Available to students with high academic achievement and demonstrated financial need. Endowed scholarships are usually restricted by geographic locality or major. Awards range from \$150-\$2,000 per year.



*National Merit Scholarships.* Awarded to National Merit finalists who indicate Ohio University as their first choice institution. National Merit Scholarships are four-year awards ranging in value from \$200-\$1,500.

Other scholarships which are available to new students at Ohio University include the following:

*Transfer Student Scholarships.* Students who have completed a two-year program of study or who have earned an associate degree at another institution will be eligible for scholarship consideration as soon as they are accepted to Ohio University. Criteria used for evaluating transfer students' scholarship eligibility are comparable to those used for freshman scholarships.

In addition to scholarships, the student who demonstrates significant financial need may be considered for loans, grants and the College Work-Study Program.

Further information about scholarships, or need-based aid programs may be obtained from the Office of Student Financial Aids, Chubb Hall, Ohio University, Athens, Ohio 45701.







## GRANTS FOR STUDENTS

Unlike loans, grants do not have to be repaid.

*Ohio Instructional Grants Program (OIG).* A financial aid program funded through the State of Ohio to assist in eliminating economic barriers to Ohio college students.

Ohio Instructional Grants are awarded on the basis of relative financial need. The grants may be awarded to the average as well as to the superior student. It is estimated that awards for academic 1975-76 will range between \$90-\$600. Applications are available from the Ohio Board of Regents, Student Assistance Office, State Office Tower, Room 3648, 30 East Broad Street, Columbus, Ohio 43215. OIG applications can also be obtained from high school guidance counselors.

*Basic Educational Opportunity Grant Program (BEOG).* A federal program of financial assistance to those who need it for post-high school education. It is estimated that during the 1975-76 academic year the awards will range between \$50 and \$1,400.

Applications may be obtained by contacting the guidance counselor at your

local high school or the Director, Student Financial Aids, Ohio University. If you need assistance or if you do not receive a response to your applications within six weeks you should write: BEOG, Box C, Iowa City, Iowa 52240. Include your name, address and social security number.

*Supplemental Educational Opportunity Grants (SEOG).* Normally awarded to undergraduate students who come from historically low-income families or who demonstrate need. Recipients are selected from students who have submitted financial aid applications. Grants range from \$200 to \$1,000 per academic year depending upon the amount of financial assistance that the parents are expected to contribute.

*Law Enforcement Educational Grants.* Available on a limited basis to law enforcement personnel already employed full-time by law enforcement agencies. The grants cover instructional fees and books up to \$750 per year. Interested students should request special Law Enforcement Grant applications from the Branch Coordinator, Student Financial Aids, Chubb Hall, Ohio University, Athens, Ohio 45701.

## LOAN FUNDS

*National Direct Student Loans.* Federal loans up to \$1,000 per year are available to undergraduate students. No interest is charged on the loan while the student remains in school. Repayment period begins at three percent interest nine months after the student terminates his or her educational program. Repayment may extend over a ten-year period. Provision is made for partial cancellation of the loan if the student becomes a teacher in an area having a high concentration of low-income families. The exact amount of the loan is determined by demonstrated financial need. A cosigner, preferably a parent or guardian, is required in all cases and each loan must be secured by a note.

*Alumni Combined Loan Fund.* This fund provides emergency loans to students. In addition, a student must (1) have a reliable source of payment, (2) be pursuing a full-time course of study and (3) have completed at least one quarter of work at Ohio University if an undergraduate. Maximum amount of the loan is \$300 for freshmen and sophomores and \$500 for juniors, seniors and graduate students.

*Fenzel Loan Funds.* The Fenzel Fund is used exclusively for emergency short-term loans for 30, 60 and 90 days. The loans may be made for any purpose, do not require a cosigner and offer a maximum of \$300.

*Student Reserve Loan Fund.* Students with guaranteed sources of repayment are eligible to apply for student reserve loans to pay University bills. Foreign students with periodic allocation of funds, veterans with monthly G.I. Bill benefits, graduate students on University contract and students

receiving social security payments or employed through the work-study program are examples of students who qualify for this fund.

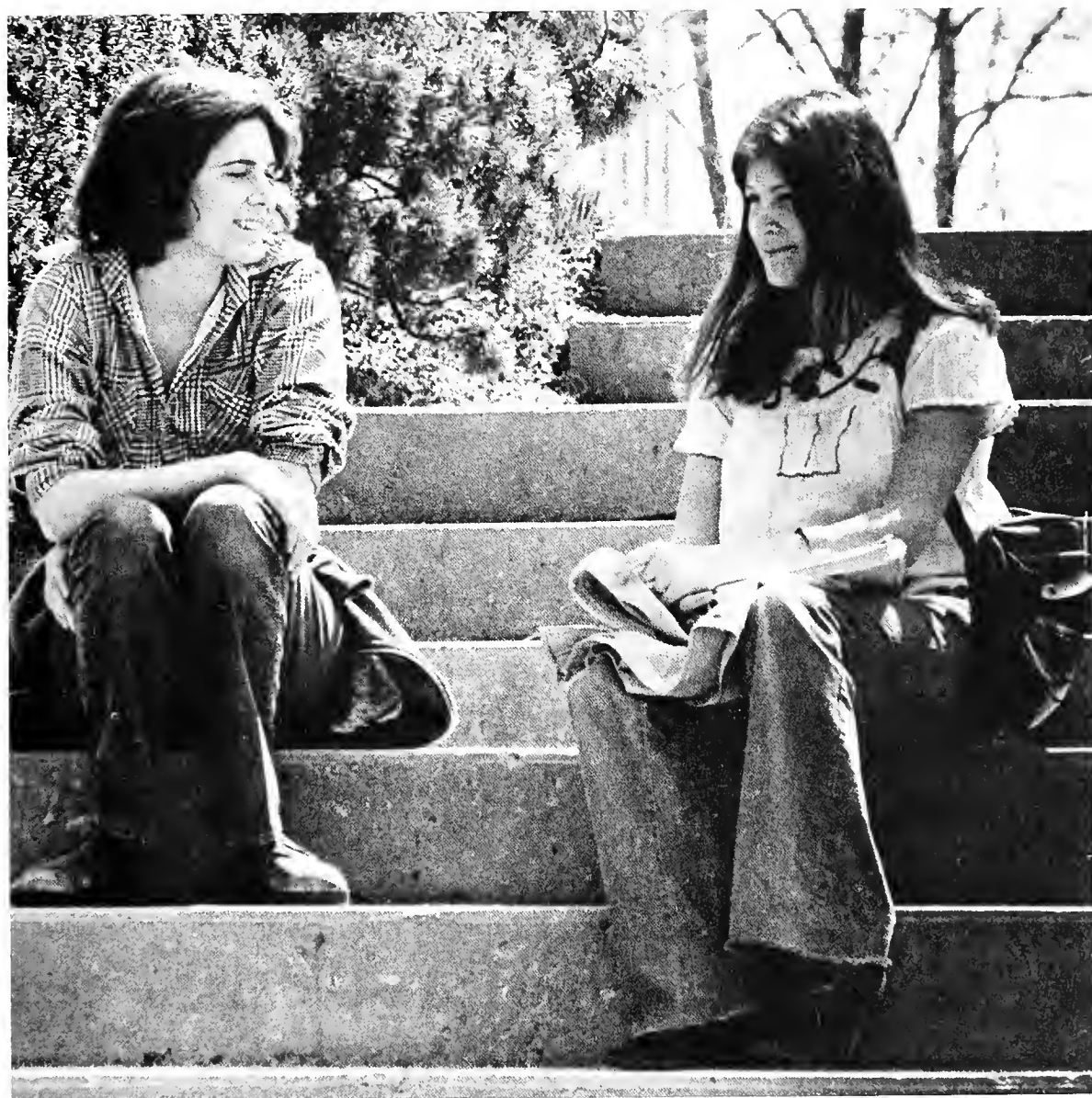
*Bishop Loan Fund.* Loans up to \$800 per academic year are available to students admitted to the College of Business Administration. Short-term emergency and longer-term emergency and long-term, after-graduation loans are available through the Office of Student Financial Aids.

## STUDENT EMPLOYMENT

*College Work-Study Program Employment.* Students may earn a portion of their educational expenses through part-time employment in the College Work-Study Program. Employment opportunities generally coincide with the student's academic major. Students must demonstrate financial need to qualify for this program. Full-time summer employment is also available to qualified applicants from southeastern Ohio communities. Inquiries and applications should be forwarded to: Director, College Work-Study Program, Student Financial Aids.

*The Centralized Student Employment Service.* All student employment opportunities are posted in the Office of Student Financial Aids. Students desiring part-time work who do not apply or qualify for the College Work-Study Program may apply for student employment. The office maintains complete listings of employment opportunities and provides a referral service. Demonstrated financial need is not a factor. Employment applications are available in the Office of Student Financial Aids.







## Fees and Expenses

The estimated *average* expenses per school year are as follows:

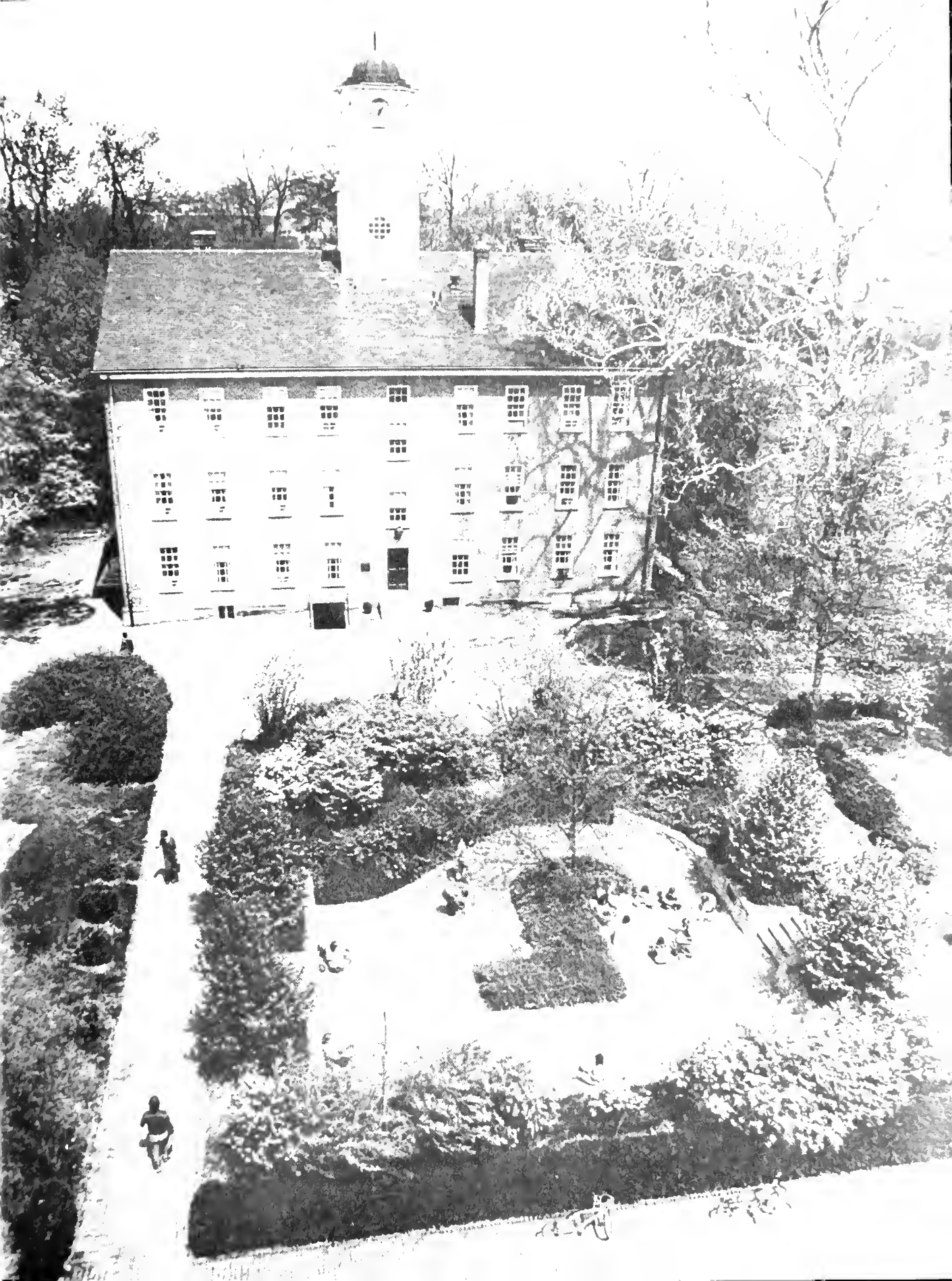
	In-State (Resident)	Out-of-State (Nonresident)
Instructional and General Fees*	\$780	\$780
Tuition Surcharge	—	1,200
Books and Supplies	150	150
Board and Room (Double Room and Full Meal Plan)	1,494	1,494
Personal, Recreation and Travel	500	500
<b>TOTAL</b>	<b>\$2,924</b>	<b>\$4,124</b>

\*Fees are subject to change prior to the beginning of the fall quarter, 1976-77.

Instructional and general fees include all regular courses of instruction and general laboratory, library, health and student activities fees. It *does not* include the \$20 *nonrefundable* fee which must accompany the admissions application or special fees for instruction in such areas as flight training or music.

Actual costs vary considerably from one student to the next, depending on such things as the kind of housing desired, the amount of weekend travel, the nature and number of courses carried and whether or not any specialized instruction is taken.

Arrangements can be made for deferred payment of fees on a monthly basis. Detailed information is available from the Controller's Office.



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